

Message

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**From:** harlow.david@epa.gov [harlow.david@epa.gov]  
**Sent:** 2/20/2019 7:30:12 PM  
**To:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Re: Latest Willowbrook table and maps

Mike,

Thanks. I've printed out hard copies of most of this material.

Sent from my iPhone

On Feb 20, 2019, at 2:22 PM, Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)> wrote:

Just making sure you have this – for today's 2:30 call.

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**From:** Davis, Alison  
**Sent:** Wednesday, February 13, 2019 5:57 PM  
**To:** Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Cc:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>  
**Subject:** FW: Latest Willowbrook table and maps

Hi Clint,

Just checking in to see where we are on approval for posting this data. We'll adjust the shading/footnotes on the table, given that we are not updating any values with this posting.

Also, FYI, the Village of Willowbrook reached out to request a call about their monitoring data (they have been conducting monitoring also). That call has been scheduled for tomorrow.

Thanks.  
Alison

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**From:** Koerber, Mike  
**Sent:** Wednesday, February 13, 2019 11:52 AM  
**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>  
**Subject:** Fwd: Latest Willowbrook table and maps

Sent from my iPhone

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** February 12, 2019 at 3:59:51 PM EST  
**To:** "Josh Lewis (Lewis.Josh@epa.gov)" <Lewis.Josh@epa.gov>  
**Cc:** "Woods, Clint" <woods.Clint@epa.gov>  
**Subject:** FW: Latest Willowbrook table and maps

Josh – Please print a copy of the spreadsheet for Bill. I mentioned the high values to Clint earlier today – see Jan 6, 15, and 17. Also, I'd like to get 30 minutes to talk with Bill and Clint over the next few days to discuss next steps on monitoring. We are only

## Deliberative Process / Ex. 5

Mike

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**From:** Weinstock, Lewis  
**Sent:** Tuesday, February 12, 2019 3:17 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Chen, Xi <Chen.Xi@epa.gov>; McBrien, Jenia <McBrien.Jenia@epa.gov>; Noah, Greg <Noah.Greg@epa.gov>; Thurman, James <Thurman.James@epa.gov>  
**Subject:** Latest Willowbrook table and maps

Hi Mike:

Attached are the latest data for the Willowbrook study – thanks to Doris and Greg for the data review and to James for the wind roses. I used the webinar slide deck for the update so the file is all inclusive. The study's EtO averages to date are updated through January 17, 2019.

Please let us know if you have any questions. Do you want me to forward this information to the technical folks in Region 5 (Compher, Nwia) for their inspection?

Lewis Weinstock | Group Leader | Ambient Air Monitoring Group | Air Quality Assessment Division -  
Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection  
Agency | Research Triangle Park, NC 27711 | Phone: 919-541-3661|

<021219 v1 Willowbrook EtO Master Data Table for Web.xlsx>

<Willowbrook EtO working slides Feb 12 2019.pptx>

Appointment

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**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 2/22/2019 4:37:47 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Newton, Cheryl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ae08c2f1c2304a61bf7c01de62f35dbf-Cenewton]; Thiede, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc09fac5acc4ce1ba689fb2ce70d459-Thiede, Kur]; Nelson, Leverett [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2229a07c2cb442b182332d9dcc325f13-LNelson]; Nam, Ed [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a2653f1ddd59470688ba557dd84d9690-Nam, Ed]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ba6f7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**Subject:** Call with Region 5 re: Sterigenics  
**Attachments:** Re: Sterigenics - foundational support for USEPA's sampling data  
**Location:** WJC - N + **Personal Phone / Ex. 6**  
**Start:** 2/22/2019 9:15:00 PM  
**End:** 2/22/2019 10:00:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Justin Schwab, Cheryl Newton, Kurt Thiede, Levertt Nelson, Ed Nam, Joe Brazaskas, Mike Koerber, David Harlow



Re: Sterigenics -  
foundational sup...

Appointment

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**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 2/25/2019 8:56:12 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/25/2019 9:00:00 PM  
**End:** 2/25/2019 9:30:00 PM  
**Show Time As:** Tentative  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/4/2019 3:01:27 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Phone call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/4/2019 4:30:00 PM  
**End:** 2/4/2019 5:00:00 PM  
**Show Time As:** Tentative

## Message

**From:** harlow.david@epa.gov [harlow.david@epa.gov]  
**Sent:** 2/16/2019 4:21:20 AM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**CC:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Re: IL EPA

You know, if the facility is going to be shut down for any length of time while they're in court, perhaps now would be a good time to monitor pretty much every day.

Sent from my iPhone

On Feb 15, 2019, at 10:04 PM, Harlow, David <harlow.david@epa.gov> wrote:

Bill,

I came upstairs just now to get my phone to send you and Clint a message to this effect, since I just saw a news story about this online. I'm glad you were already notified.

Sent from my iPhone

On Feb 15, 2019, at 7:15 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

FYI

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Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

Begin forwarded message:

**From:** "Macnabb, Philip" <PMacnabb@sterigenics.com>  
**Date:** February 15, 2019 at 7:12:16 PM EST  
**To:** "Wehrum.Bill@epa.gov" <Wehrum.Bill@epa.gov>  
**Cc:** "tcr@vnf.com" <tcr@vnf.com>  
**Subject:** IL EPA

Bill

I wanted to make you aware that tonight at 5pm we received a "seal order" from IL EPA to stop using EO due to public health crisis. We will stop processing until we can get in front of a judge.

Feel free to call my cell at Personal Phone / Ex. 6 if you would like further details.

Sent from my iPhone

This e-mail and any files transmitted with it may contain privileged and/or confidential information. If you believe this e-mail or any of its attachments were not intended for you, you must not use, distribute, forward, print or copy this e-mail or any attached files. If you have received this e-mail in error, please notify the sender by reply e-mail and then immediately delete the email and all attachments.

Message

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**From:** harlow.david@epa.gov [harlow.david@epa.gov]  
**Sent:** 2/27/2019 7:44:35 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]  
**CC:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Re: Willowbrook Monitoring

Bill & Clint,

# Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 27, 2019, at 12:34 PM, Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)> wrote:

Bill,

Any concerns? This makes sense to me.

Begin forwarded message:

**From:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Date:** February 27, 2019 at 12:24:41 PM EST  
**To:** "Harlow, David" <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>, "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Cc:** "Lewis, Josh" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** Willowbrook Monitoring

Question: Is OAR okay with us continuing monitoring through at least March 15?

# Deliberative Process / Ex. 5

Mike

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 3/11/2019 2:04:49 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 3/11/2019 8:15:00 PM  
**End:** 3/11/2019 8:45:00 PM  
**Show Time As:** Busy  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 3/11/2019 2:04:49 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 3/11/2019 8:00:00 PM  
**End:** 3/11/2019 8:30:00 PM  
**Show Time As:** Busy  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Appointment

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**From:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Sent:** 2/25/2019 8:56:11 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Woods, Clint [woods.clint@epa.gov]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 2/25/2019 9:00:00 PM  
**End:** 2/25/2019 9:30:00 PM  
**Show Time As:** Busy  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 2/4/2019 3:01:29 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Phone call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 Personal Phone / Ex. 6  
**Start:** 2/4/2019 4:30:00 PM  
**End:** 2/4/2019 5:00:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Sent:** 2/22/2019 7:35:32 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Newton, Cheryl [Newton.Cheryl@epa.gov]; Thiede, Kurt [thiede.kurt@epa.gov]; Nelson, Leverett [nelson.leverett@epa.gov]; Nam, Ed [nam.ed@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Brazauskas, Joseph [brazauskas.joseph@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]  
**CC:** Leopold, Matt (OGC) [Leopold.Matt@epa.gov]  
**Subject:** Call with Region 5 re: Sterigenics  
**Attachments:** Re: Sterigenics - foundational support for USEPA's sampling data  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/22/2019 9:15:00 PM  
**End:** 2/22/2019 10:00:00 PM  
**Show Time As:** Busy

**TO:** Bill Wehrum, Clint Woods, Justin Schwab, Cheryl Newton, Kurt Thiede, Levertt Nelson, Ed Nam, Joe Brazaskas, Mike Koerber, David Harlow



Re: Sterigenics -  
foundational sup...

Appointment

---

**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 12/13/2018 5:02:51 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Davis, Alison [Davis.Alison@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**Location:** WJC - N 5400 + conference call  
  
**Start:** 12/13/2018 5:30:00 PM  
**End:** 12/13/2018 6:00:00 PM  
**Show Time As:** Busy

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Wednesday, December 12, 2018 3:47 PM  
**To:** Wehrum, Bill; Davis, Alison; Mike Koerber (Koerber.Mike@epa.gov)  
**Subject:** Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**When:** Thursday, December 13, 2018 12:30 PM-1:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + conference call

Alison #:

Jennifer #:

Appointment

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**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 2/19/2019 5:59:15 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/19/2019 6:00:00 PM  
**End:** 2/19/2019 6:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 12/4/2018 9:18:48 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]; Rimer, Kelly [Rimer.Kelly@epa.gov]; Davis, Alison [Davis.Alison@epa.gov]; Smith, Darcie [Smith.Darcie@epa.gov]; Weinstock, Lewis [Weinstock.Lewis@epa.gov]; Bremer, Kristen [Bremer.Kristen@epa.gov]; Chen, Xi [Chen.Xi@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP + Personal Phone / Ex. 6  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Show Time As:** Busy

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer

Appointment

---

**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 12/4/2018 8:17:50 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 12/10/2018 10:00:00 PM  
**End:** 12/10/2018 10:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Sent:** 12/4/2018 12:31:24 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]; Rimer, Kelly [Rimer.Kelly@epa.gov]; Davis, Alison [Davis.Alison@epa.gov]; Smith, Darcie [Smith.Darcie@epa.gov]; Bremer, Kristen [Bremer.Kristen@epa.gov]; Chen, Xi [Chen.Xi@epa.gov]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** Meeting re: Willowbrook samples  
**Attachments:** Re: Willowbrook samples Nov 14-20 - All spreadsheets  
**Location:** WJC - N 5400 + Video with RTP + **Personal Phone / Ex. 6**  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Busy

## -----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Monday, December 3, 2018 12:39 PM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Smith, Darcie; Weinstock, Lewis; Bremer, Kristen; Chen, Xi  
**Subject:** Meeting re: Willowbrook samples  
**When:** Tuesday, December 4, 2018 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with RTP + **Personal Phone / Ex. 6**

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer



Re: Willowbrook  
samples Nov 14-...

## Message

**From:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**Sent:** 12/3/2018 5:32:03 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**CC:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Subject:** Re: Willowbrook samples Nov 14-20 - All spreadsheets

Thanks - please include Kelly Rimer, Alison Davis, Darcy Smith, Lew Weinstock, Doris Chen and Kristen Bremer.

Sent from my iPhone

On Dec 3, 2018, at 12:23 PM, Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)> wrote:

We can shift things to make room for 30 mins at 3:30 tomorrow. Just let us know who you want on the invite from OAQPs

---

**From:** Koerber, Mike  
**Sent:** Monday, December 03, 2018 12:02 PM  
**To:** Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Cc:** Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Subject:** Fwd: Willowbrook samples Nov 14-20 - All spreadsheets

We can be ready tomorrow afternoon, if there's time available. Right now, we're thinking about posting on Thursday - still one more QA step to go through.

Mike

Begin forwarded message:

**From:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Date:** December 3, 2018 at 9:56:57 AM EST  
**To:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Cc:** "Lewis, Josh" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>, "Rakosnik, Delaney" <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>  
**Subject:** RE: Willowbrook samples Nov 14-20 - All spreadsheets

Mike,

Ahead of that call, could we schedule a short check in call or put together a one pager for

## Deliberative Process / Ex. 5

Clint Woods  
 Deputy Assistant Administrator  
 Office of Air and Radiation, U.S. EPA  
 202.564.6562

---

**From:** Koerber, Mike  
**Sent:** Monday, December 3, 2018 9:45 AM

**To:** Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** FW: Willowbrook samples Nov 14-20 - All spreadsheets

## Deliberative Process / Ex. 5

Mike

**From:** Chen, Xi  
**Sent:** Monday, December 03, 2018 9:00 AM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>; Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>; Shappley, Ned <[Shappley.Ned@epa.gov](mailto:Shappley.Ned@epa.gov)>  
**Cc:** Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>  
**Subject:** FW: Willowbrook samples Nov 14-20 - All spreadsheets

Hi all,

Please see attached spreadsheet "willowbrook sum nov\_18" for the EtO measurement data we got for the first three days of sampling. Note that 19<sup>th</sup> Nov was the first day of full deployment at all of our 8 sites. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 Let me know if you have any questions.

Thanks,  
Doris

**From:** Julie Swift <[Julie.Swift@erg.com](mailto:Julie.Swift@erg.com)>  
**Sent:** Thursday, November 29, 2018 4:18 PM  
**To:** Chen, Xi <[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>  
**Subject:** Willowbrook samples Nov 14-20 - All spreadsheets

I have attached finalized reports. I will include all of these files when I provide new reports to you. Please let me know if you would like me to change the summary spreadsheet or the log.

Thank you! Julie

Julie L. Swift  
ERG  
Office - (919) 468-7924 | Fax - (919) 468-7803  
[julie.swift@erg.com](mailto:julie.swift@erg.com)

**From:** Julie Swift  
**Sent:** Thursday, November 29, 2018 12:51 PM  
**To:** Chen, Xi <[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>  
**Subject:** Willowbrook samples Nov 14-20

I have attached the Excel and PDF reports for the first set of samples analyzed at the Willowbrook sites. The data is reported two files, a PDF and XLS report.

All samples received in the lab to date, are reported in the "sample log R5.xlsx" attached file. I will add to this when I send out each report. The first set of duplicates was invalidated and the explanation is outlined in this file.

I am working on the extra summary spreadsheet and will send that to you as soon as it has been QA'd. I should be able to get that sent to you within the next few hours, but thought you would like to see the results now

Please let me know if you have any questions. Thank you! Julie

Julie L. Swift

VP/Program Manager/Chemist

ERG

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

Office - (919) 468-7924 | Fax - (919) 468-7803

[julie.swift@erg.com](mailto:julie.swift@erg.com)

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 12/3/2018 4:51:11 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 10:00:00 PM  
**End:** 12/3/2018 10:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 11/28/2018 4:27:05 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [woods.clint@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]; Rimer, Kelly [Rimer.Kelly@epa.gov]; Davis, Alison [Davis.Alison@epa.gov]; Deamer, Eileen [deamer.eileen@epa.gov]  
**CC:** Nam, Ed [nam.ed@epa.gov]; Kelley, Jeff [kelley.jeff@epa.gov]; Siegel, Kathryn [siegel.kathryn@epa.gov]; Cain, Alexis [cain.alexis@epa.gov]; Fortin, Denise [Fortin.Denise@epa.gov]; Engelmann, Robert [Engelmann.Robert@epa.gov]; Payne, James [payne.james@epa.gov]; Thiede, Kurt [thiede.kurt@epa.gov]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** NATA briefing for Lake County Elected Officials  
**Attachments:** Details and VTC for 11/28 meeting  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Show Time As:** Busy

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Tuesday, November 27, 2018 11:01 AM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Deamer, Eileen  
**Cc:** Nam, Ed; Kelley, Jeff; Siegel, Kathryn; Cain, Alexis; Fortin, Denise; Engelmann, Robert; James Payne (payne.james@epa.gov); Kurt Thiede (thiede.kurt@epa.gov)  
**Subject:** NATA briefing for Lake County Elected Officials  
**When:** Wednesday, November 28, 2018 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer  
**CC:** Alison Davis, Eileen Deamer



Details and VTC  
 for 11/28 meeting

## Message

**From:** Ashley, Jackie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=01A9A3CADFA14C509D09CDAE3498DD43-JASHLEY]  
**Sent:** 11/27/2018 3:46:43 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**CC:** Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Deamer, Eileen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f2d19c60656344f5b14361c0acc826d2-EDeamer]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**Subject:** Details and VTC for 11/28 meeting

Josh –

It was nice to talk with you this morning. Here are the details for the Wednesday meeting with Lake County officials, which I understand Bill and Clint would like to join by video. Note that the meeting is at 2 p.m. Central (3 p.m. Eastern). (When we were on the phone, I mistakenly said it was for 11 a.m. Central)

Invitees should be Bill, Clint, Mike Koerber, Kelly Rimer. Please CC Alison Davis and Eileen Deamer.

We will plan to connect by video to WJC North 5400 from the Lake Michigan room in Region 5.

#### Meeting Description

##### **NATA briefing for Lake County Elected Officials**

The briefing for federal, state and local officials will cover ethylene oxide emissions in Lake County and how they are reflected EPAs National Air Toxics Assessment. The briefing will include senior representatives from U.S. EPA Headquarters' Offices of Air and Radiation (OAR) and Office of Air Quality Planning and Standards (OAQPS) by video and in person.

**Location:** EPA Region 5 Headquarters, Lake Michigan Room

**Time:** 2 p.m. Central

**Date:** Wednesday, Nov. 28

#### Draft agenda

- Welcome and Introductions (Bill/Clint or Mike)
- NATA overview (Kelly Rimer)
- Two-prong approach (Mike Koerber)
- Current status (Mike Koerber)
- Next steps (Kelly Rimer)

-----  
 Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 11/26/2018 3:02:42 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [woods.clint@epa.gov]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** Personal Phone / Ex. 6  
**Start:** 11/26/2018 9:30:00 PM  
**End:** 11/26/2018 10:00:00 PM  
**Show Time As:** Busy

## Message

**From:** Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]  
**Sent:** 11/20/2018 3:38:29 PM  
**To:** Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Re: EtO Update

Thanks so much

> On Nov 20, 2018, at 10:38 AM, Atkinson, Emily <Atkinson.Emily@epa.gov> wrote:  
 >  
 > It still works. I will send a meeting notice out shortly.  
 >  
 > -----Original Message-----  
 > From: Rimer, Kelly  
 > Sent: Tuesday, November 20, 2018 10:37 AM  
 > To: Atkinson, Emily <Atkinson.Emily@epa.gov>  
 > Subject: Re: EtO Update  
 >  
 > I moved the other meeting so noon will work if it still works for Bill and Clint  
 >  
 >> On Nov 20, 2018, at 10:24 AM, Atkinson, Emily <Atkinson.Emily@epa.gov> wrote:  
 >>  
 >> I don't have any other times open today, expect at 4:30pm. Could that work for you all?  
 >>  
 >> -----Original Message-----  
 >> From: Rimer, Kelly  
 >> Sent: Tuesday, November 20, 2018 10:22 AM  
 >> To: Atkinson, Emily <Atkinson.Emily@epa.gov>  
 >> Subject: Re: EtO Update  
 >>  
 >> We have a meeting with Sterigenics scheduled for noon  
 >>  
 >> If there is not another time later today I can see if I can reschedule that mtg  
 >>  
 >>> On Nov 20, 2018, at 10:17 AM, Atkinson, Emily <Atkinson.Emily@epa.gov> wrote:  
 >>>  
 >>> Today  
 >>>  
 >>> -----Original Message-----  
 >>> From: Rimer, Kelly  
 >>> Sent: Tuesday, November 20, 2018 10:16 AM  
 >>> To: Atkinson, Emily <Atkinson.Emily@epa.gov>  
 >>> Subject: Re: EtO Update  
 >>>  
 >>> Tomorrow ?  
 >>>  
 >>>> On Nov 20, 2018, at 10:07 AM, Atkinson, Emily <Atkinson.Emily@epa.gov> wrote:  
 >>>>  
 >>>> Hi Kelly,  
 >>>>  
 >>>> It looks like 12:00 - 1pm is open for both Clint and Bill.  
 >>>>  
 >>>> Would you like to send a scheduler or should I send one to the group outlined below?  
 >>>>  
 >>>> Emily  
 >>>>  
 >>>> -----Original Message-----  
 >>>> From: Rimer, Kelly  
 >>>> Sent: Tuesday, November 20, 2018 9:56 AM  
 >>>> To: Woods, Clint <woods.Clint@epa.gov>  
 >>>> Cc: Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>; Atkinson, Emily <Atkinson.Emily@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>  
 >>>> Subject: Re: EtO Update  
 >>>>  
 >>>> Of course  
 >>>> We will set something up.  
 >>>>  
 >>>>> On Nov 20, 2018, at 9:45 AM, Woods, Clint <woods.clint@epa.gov> wrote:

>>>>

>>>> All,

>>>>

>>>> Any chance we might be able to schedule 30 mins tomorrow or late today to talk with Bill briefly about EtO monitoring interference / website updates / public meeting themes? Thanks!

>>>>

>>>> Clint

Appointment

---

**From:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Sent:** 11/8/2018 6:34:18 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Gunasekara, Mandy [Gunasekara.Mandy@epa.gov]; Woods, Clint [woods.clint@epa.gov]  
**Subject:** Meeting with Phil MacNabb re: Sterigenics (CONFIRMED)  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 11/13/2018 2:30:00 PM  
**End:** 11/13/2018 3:15:00 PM  
**Show Time As:** Busy

**TO:** Bill Wehrum, David Harlow, Mandy Gunasekara, Clint Woods

**Meeting attendees (in person):**

- Phil MacNabb – Sterigenics
- Byron Taylor – Sidley Austin

NOTE: This meeting was scheduled through a phone conversation.

Appointment

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**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 11/1/2018 9:00:42 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**Subject:** Phone call with Phil Macnabb re: Sterigenics (confirmed)  
**Attachments:** Untitled Attachment  
**Location:** WJC - N 5400 Personal Phone / Ex. 6  
**Start:** 11/5/2018 9:00:00 PM  
**End:** 11/5/2018 9:30:00 PM  
**Show Time As:** Tentative

**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

**TO:** Bill Wehrum, David Harlow, Clint Woods, Mandy Gunasekara

Note: This meeting was scheduled out of a phone call with Phil MacNabb. We called him back to confirm the phone call.

Appointment

---

**From:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Sent:** 9/26/2018 12:08:15 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Meeting with Sterigenics (confirmed)  
**Attachments:** CONFIRMED RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods  
**Location:** WJC - N 5400  
  
**Start:** 9/26/2018 5:00:00 PM  
**End:** 9/26/2018 5:45:00 PM  
**Show Time As:** Busy

**TO:** Bill Wehrum, Clint Woods, David Harlow

**Meeting attendees (in person)**

- Philip Macnaab, President, Sterigenics
- Kathy Hoffman, Senior Vice President, Sterigenics
- Byron Taylor, Sidley Austin, Outside Environmental Counsel to Sterigenics
- Tom Roberts, Van Ness Feldman, Outside Government Relations Counsel to Sterigenics



CONFIRMED RE:  
Request on Beha...

## Message

**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 9/24/2018 8:35:36 PM  
**To:** tcr@vnf.com [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60634a7f78964380838648935cd3d7b1-tcr@vnf.com]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** CONFIRMED RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Dear Tom,

You are confirmed for a 45 min meeting starting at 1pm on Wednesday, 9/26, with Bill Wehrum and Clint Woods.

Directions and procedures to 1200 Pennsylvania Avenue NW:

**Metro:** If you come by Metro get off at the Federal Triangle metro stop. Exit the metro station and go up two sets of escalators to the surface level and turn right. You will see a short staircase and wheelchair ramp leading to a set of glass doors with the EPA logo - that is the William Jefferson Clinton Federal Building, North Entrance.

**Taxi:** Direct the taxi to drop you off on 12th Street NW, between Constitution and Pennsylvania Avenues, at the elevator for the Federal Triangle metro stop - this is almost exactly half way between the two avenues on 12<sup>th</sup> Street NW. Facing the building with the EPA logo and American flags, walk toward the building and take the glass door on your right hand side with the escalators going down to the metro on your left – that is the North Lobby of the William Jefferson Clinton building.

**Security Procedures:** A government issued photo id is required to enter the building and it is suggested you arrive 15 minutes early in order to be cleared and arrive at the meeting room on time. Upon entering the lobby, the meeting attendees will be asked to pass through security and provide a photo ID for entrance. If you are a foreign national entering on a non-US passport, please let us know in advance, as there is a separate clearance process.

Upon arrival, let the guards know that you were instructed to call 202-564-7404 for a security escort. Please send me a list of participants in advance of the meeting and feel free to contact me should you need any additional information.

Many thanks,

Delaney Rakosnik  
 Staff Assistant  
 Immediate Office of the Assistant Administrator  
 Office of Air and Radiation, USEPA  
 Room 5406A, 1200 Pennsylvania Avenue NW  
 Washington, DC 20460  
 Voice: 202-564-2229  
 Email: [rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)

---

**From:** Tom Roberts [mailto:[tcr@vnf.com](mailto:tcr@vnf.com)]  
**Sent:** Monday, September 24, 2018 3:42 PM  
**To:** Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Delaney – I believe that will work for us. Let's put it on the calendar and I will confirm that we can make it. For planning purposes, how much time are we likely to have with Clint and Bill?

Thank you very much.

Tom Roberts  
(202) 365-7750 (c) | [tcr@vnf.com](mailto:tcr@vnf.com)

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**From:** Rakosnik, Delaney [mailto:[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)]  
**Sent:** Monday, September 24, 2018 3:40 PM  
**To:** Tom Roberts; Lewis, Josh  
**Subject:** RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Hi Tom – My apologies for the delay. Bill and Clint can accommodate this meeting on Wednesday, 9/26 at 1pm. How does that work for your schedules?

Many thanks,

Delaney Rakosnik  
Staff Assistant  
Immediate Office of the Assistant Administrator  
Office of Air and Radiation, USEPA  
Room 5406A, 1200 Pennsylvania Avenue NW  
Washington, DC 20460  
Voice: 202-564-0935  
Email: [rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)

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**From:** Tom Roberts [mailto:[tcr@vnf.com](mailto:tcr@vnf.com)]  
**Sent:** Monday, September 24, 2018 3:30 PM  
**To:** Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Delaney – I am just checking in on this request. My clients will be traveling from Chicago for this meeting and are anxious to make their arrangements. Thank you.

Tom Roberts  
(202) 365-7750 (c) | [tcr@vnf.com](mailto:tcr@vnf.com)

---

**From:** Rakosnik, Delaney [mailto:[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)]  
**Sent:** Friday, September 21, 2018 2:04 PM  
**To:** Tom Roberts; Lewis, Josh  
**Subject:** RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Hi Tom,

Thank you for your note. We will review and be back with you shortly.

Many thanks,

Delaney Rakosnik  
Staff Assistant  
Immediate Office of the Assistant Administrator  
Office of Air and Radiation, USEPA  
Room 5406A, 1200 Pennsylvania Avenue NW  
Washington, DC 20460  
Voice: 202-564-0935  
Email: [rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)

---

**From:** Tom Roberts [<mailto:tcr@vnf.com>]  
**Sent:** Friday, September 21, 2018 1:46 PM  
**To:** Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods

Delaney / Josh – I am a partner at the law firm of Van Ness Feldman, LLP here in DC and represent Sterigenics. I have been in communication with Clint over the last several weeks regarding the situation at Sterigenics' Willowbrook, Illinois facility.

Clint has asked me to work with the two of you to arrange a meeting with executives from Sterigenics for next week. The purpose of the meeting is to discuss the results of the stack testing at the Willowbrook facility and subsequent monitoring based on those tests.

We can meet any time next Wednesday, Thursday or Friday (September 26, 27, or 28). This is a high priority meeting for Sterigenics, so we will accommodate Clint and Bill's schedule.

Thank you for your time and consideration.

**Tom Roberts | Partner**  
**VanNess Feldman LLP**

1050 Thomas Jefferson Street, NW  
Washington, DC 20007

(202) 298-1930 (o) | (202) 365-7750 (c) | [tcr@vnf.com](mailto:tcr@vnf.com) | [vnf.com](http://vnf.com)

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## Message

**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 9/24/2018 3:03:43 PM  
**To:** Hanson, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=976b280c3eaf4e50b91a25d75466cf3c-Hanson, Andrew]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Rush, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=87bd4df8264d4490afe9414cb28062b9-ARush]; Cory, Preston (Katherine) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bfd80b15f6d04a3ba11fc8ca3c85bc50-Cory, Kathe]  
**CC:** Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]; Farrar, Wanda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018ce080d96449d48c6433dda591012f-WFarrar]; Morgan, Ruthw [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=514074e564144982a695e0eae1b58e-RMorga02]; Henigin, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0cbe828e291f4facb492fc28261db45f-MHenigin]; Noonan, Jenny [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=19d41ff0e3054aafa47d3c33308e5b30-JNOONAN]; Culligan, Kevin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ab7ef4a59614fd4b4485668c42818c7-KCULLIGA]; Hannon, Arnita [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=03d9d86e161b4a6e9ca30ab9df0df580-AHANNON]; Rowan, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02cbcc49ddb94091b9f4e358eb001352-ARowan]; Deamer, Eileen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f2d19c60656344f5b14361c0acc826d2-EDeamer]; Bowles, Jack [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=78e63acc248f41328768db82d95464c3-JBOWLES]  
**Subject:** RE: Meeting request

Dear Andrew,

Mr. Cronin and Mr. Monroe are confirmed for a 30 min meeting on Wednesday, Sept 26<sup>th</sup> starting at 9:30am with Bill Wehrum and Clint Woods.

Directions and procedures to 1200 Pennsylvania Avenue NW:

**Metro:** If you come by Metro get off at the Federal Triangle metro stop. Exit the metro station and go up two sets of escalators to the surface level and turn right. You will see a short staircase and wheelchair ramp leading to a set of glass doors with the EPA logo - that is the William Jefferson Clinton Federal Building, North Entrance.

**Taxi:** Direct the taxi to drop you off on 12th Street NW, between Constitution and Pennsylvania Avenues, at the elevator for the Federal Triangle metro stop - this is almost exactly half way between the two avenues on 12<sup>th</sup> Street NW. Facing the building with the EPA logo and American flags, walk toward the building and take the glass door on your right hand side with the escalators going down to the metro on your left – that is the North Lobby of the William Jefferson Clinton building.

**Security Procedures:** A government issued photo id is required to enter the building and it is suggested you arrive 15 minutes early in order to be cleared and arrive at the meeting room on time. Upon entering the lobby, the meeting attendees will be asked to pass through security and provide a photo ID for

entrance. If you are a foreign national entering on a non-US passport, please let us know in advance, as there is a separate clearance process.

Upon arrival, let the guards know that you were instructed to call 202-564-7404 for a security escort. Please send me a list of participants in advance of the meeting and feel free to contact me should you need any additional information.

Many thanks,

Delaney Rakosnik  
Staff Assistant  
Immediate Office of the Assistant Administrator  
Office of Air and Radiation, USEPA  
Room 5406A, 1200 Pennsylvania Avenue NW  
Washington, DC 20460  
Voice: 202-564-2229  
Email: [rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)

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**From:** Hanson, Andrew  
**Sent:** Monday, September 24, 2018 10:33 AM  
**To:** Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>; Rush, Alan <[Rush.Alan@epa.gov](mailto:Rush.Alan@epa.gov)>; Cory, Preston (Katherine) <[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)>  
**Cc:** Atkinson, Emily <[Atkinson.Emily@epa.gov](mailto:Atkinson.Emily@epa.gov)>; Farrar, Wanda <[farrar.wanda@epa.gov](mailto:farrar.wanda@epa.gov)>; Morgan, Ruthw <[morgan.ruthw@epa.gov](mailto:morgan.ruthw@epa.gov)>; Henigin, Mary <[Henigin.Mary@epa.gov](mailto:Henigin.Mary@epa.gov)>; Noonan, Jenny <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>; Culligan, Kevin <[Culligan.Kevin@epa.gov](mailto:Culligan.Kevin@epa.gov)>; Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>; Hannon, Arnita <[Hannon.Arnita@epa.gov](mailto:Hannon.Arnita@epa.gov)>; Rowan, Anne <[rowan.anne@epa.gov](mailto:rowan.anne@epa.gov)>; Deamer, Eileen <[deamer.eileen@epa.gov](mailto:deamer.eileen@epa.gov)>; Bowles, Jack <[Bowles.Jack@epa.gov](mailto:Bowles.Jack@epa.gov)>  
**Subject:** RE: Meeting request

Thanks, Alan and Josh, for the quick flip on this. Preston Cory was able to get through to Clint, so we look forward to hearing from Delaney on where to bring Chairman Cronin and Mr. Monroe (the county's lobbyist) on Wednesday morning.

Thanks again

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**From:** Lewis, Josh  
**Sent:** Monday, September 24, 2018 10:26 AM  
**To:** Rush, Alan <[Rush.Alan@epa.gov](mailto:Rush.Alan@epa.gov)>  
**Cc:** Atkinson, Emily <[Atkinson.Emily@epa.gov](mailto:Atkinson.Emily@epa.gov)>; Farrar, Wanda <[farrar.wanda@epa.gov](mailto:farrar.wanda@epa.gov)>; Morgan, Ruthw <[morgan.ruthw@epa.gov](mailto:morgan.ruthw@epa.gov)>; Henigin, Mary <[Henigin.Mary@epa.gov](mailto:Henigin.Mary@epa.gov)>; Noonan, Jenny <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>; Hanson, Andrew <[Hanson.Andrew@epa.gov](mailto:Hanson.Andrew@epa.gov)>; Culligan, Kevin <[Culligan.Kevin@epa.gov](mailto:Culligan.Kevin@epa.gov)>; Rakosnik, Delaney <[rakosnik.delaney@epa.gov](mailto:rakosnik.delaney@epa.gov)>  
**Subject:** RE: Meeting request

Bill and Clint are here on Wed and able to do a meeting at 9:30. Delaney is going to set that up shortly. OAQPS: pls let us know who you want on from your office.

Josh

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**From:** Rush, Alan  
**Sent:** Monday, September 24, 2018 10:13 AM  
**To:** Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Cc:** Atkinson, Emily <[Atkinson.Emily@epa.gov](mailto:Atkinson.Emily@epa.gov)>; Farrar, Wanda <[farrar.wanda@epa.gov](mailto:farrar.wanda@epa.gov)>; Morgan, Ruthw <[morgan.ruthw@epa.gov](mailto:morgan.ruthw@epa.gov)>; Henigin, Mary <[Henigin.Mary@epa.gov](mailto:Henigin.Mary@epa.gov)>; Noonan, Jenny <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>; Hanson, Andrew <[Hanson.Andrew@epa.gov](mailto:Hanson.Andrew@epa.gov)>; Culligan, Kevin <[Culligan.Kevin@epa.gov](mailto:Culligan.Kevin@epa.gov)>  
**Subject:** FW: Meeting request  
**Importance:** High

Josh,

This morning we received this meeting request from OCIR. Dan Cronin, Chairman of the DuPage County (Illinois) Board, initially wanted to meet with either Bill or Clint, but as they are both out of town, would still like to meet with someone from OAR. The topic is about levels of ethylene oxide surrounding the Sterigenics facility in Willowbrook, IL.

Alan

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**From:** Hanson, Andrew  
**Sent:** Monday, September 24, 2018 9:39 AM  
**To:** Farrar, Wanda <[farrar.wanda@epa.gov](mailto:farrar.wanda@epa.gov)>; Rush, Alan <[Rush.Alan@epa.gov](mailto:Rush.Alan@epa.gov)>; Morgan, Ruthw <[morgan.ruthw@epa.gov](mailto:morgan.ruthw@epa.gov)>  
**Cc:** Cory, Preston (Katherine) <[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)>; Noonan, Jenny <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>  
**Subject:** FW: Meeting request  
**Importance:** High

Hi Wanda, Alan and Ruth –

Per the note at bottom, DuPage County (IL) Chairman Dan Cronin will be in DC on Wednesday and has requested a meeting to discuss issues associated with the Sterigenics facility in Willowbrook, IL. As it turns out, Bill Wehrum and Clint Woods will be in Illinois on Thursday to discuss this issue with state and local officials. That said, Chairman Cronin will be here in town the day before that meeting and would like to speak with the appropriate person at EPA HQ about this.

Can you guys run an expedited request up the chain and let me know who that person would be? Preston Cory, a member of OCIR's political team, is checking in with Clint about it, but I wanted to run it through you guys just in case he is unavailable/unable to respond quickly.

Thank you, and please let me know.

AH  
OCIR  
564-3664

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**From:** Cory, Preston (Katherine)  
**Sent:** Monday, September 24, 2018 9:21 AM  
**To:** Hanson, Andrew <[Hanson.Andrew@epa.gov](mailto:Hanson.Andrew@epa.gov)>  
**Subject:** FW: Meeting request  
**Importance:** High

Andy- The Chairman would like to meet at HQ on Wednesday, but I need your help setting up the meeting. Who in OAR is the best person with whom he could speak?

---

**From:** Monroe, Loren [[mailto:Loren\\_Monroe@BGRdc.com](mailto:Loren_Monroe@BGRdc.com)]  
**Sent:** Sunday, September 23, 2018 3:31 PM  
**To:** Cory, Preston (Katherine) <[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)>  
**Subject:** Re: Meeting request

Thank you. It is an important issue for the Chairman.

Look forward to hearing from you tomorrow.

Loren Monroe

On Sep 22, 2018, at 3:05 PM, Cory, Preston (Katherine) <[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)> wrote:

I'll set something up- our air principals will be on travel, but I'll make sure one of our career staffers is available to meet with him.

K. Preston Cory  
U.S. Environmental Protection Agency  
Congressional and Intergovernmental Relations  
202-579-4281

On Sep 22, 2018, at 1:57 PM, Monroe, Loren <[Loren\\_Monroe@BGRdc.com](mailto:Loren_Monroe@BGRdc.com)> wrote:

Thank you for the very helpful information. Chairman Cronin would still like to meet with EPA on Wednesday while he is in DC if at all possible.

Thank you,

Loren Monroe

On Sep 21, 2018, at 6:49 PM, Cory, Preston (Katherine) <[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)> wrote:

Hi Loren,

Our Region 5 office is looking into the possibility of inviting Chairman Cronin to a meeting with Mayors and state officials on 9/27. I don't know if he will be back in Illinois by then or if that would be sufficient for him. I know the Illinois EPA office has been involved on Sterigenics. Bill Wehrum, Assistant Administrator for the Office of Air and Radiation (OAR) and Clint Woods, Deputy Addistant Administrator, will be in Illinois together to speak to the group. This issue falls under OAR's purview and not OECA's.

I have made our Office of Air and Radiation at HQ aware of this request. I don't think a meeting at headquarters next week will be an issue. Please let me know how you'd like to proceed.

Thanks,  
Preston

K. Preston Cory  
U.S. Environmental Protection Agency  
Congressional and Intergovernmental Relations  
202-579-4281

On Sep 21, 2018, at 3:22 PM, Monroe, Loren  
<[Loren\\_Monroe@BGRdc.com](mailto:Loren_Monroe@BGRdc.com)> wrote:

Before the week got away, I wanted to check back to see if a meeting on Wednesday looked possible.

Thank you,

Loren Monroe  
BGR

On Sep 20, 2018, at 4:47 PM, Cory, Preston (Katherine)  
<[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)> wrote:

Hi Loren,

I'm happy to help set this up for next week. Let me touch base with my counterparts in Office of Compliance, and I should have an update tomorrow.

Thanks,  
Preston

**K. Preston Cory**  
Director of Intergovernmental Relations  
Office of the Administrator  
U.S. Environmental Protection Agency  
202-579-4281

---

**From:** Monroe, Loren  
[[mailto:Loren\\_Monroe@BGRdc.com](mailto:Loren_Monroe@BGRdc.com)]  
**Sent:** Thursday, September 20, 2018  
1:49 PM  
**To:** Cory, Preston (Katherine)  
<[Cory.Preston@epa.gov](mailto:Cory.Preston@epa.gov)>  
**Subject:** Meeting request

Cory:

On behalf of Dan Cronin, Chairman of the DuPage County (Illinois) Board, I would like to request a meeting with

Assistant Administrator Bodie Of the Office of Enforcement and Compliance, or one of her representatives, to discuss an issue that the EPA has raised in the County. The Chairman would like to request the meeting on Wednesday, September 26th, as he will be in Washington DC on that date.

Recently the EPA issued a statement which indicated the levels of ethylene oxide surrounding the Sterigenics facility in Willowbrook, IL are harmful to those with long term exposure. Approximately 20,000 county residents are potentially impacted. Chairman Cronin would like to meet to better understand the steps being taken by the US EPA to addresses concerns about ethylene oxide levels in the community.

Attached is a request letter, addressed to the Assistant Administrator of Enforcement, the EPA announcement and a County Resolution on the matter.

Please let me know if there are additional individuals who I should reach out to submit this request.

Thank you in advance for your time and assistance.

Loren Monroe  
Principal  
BGR Government Affairs, LLC  
The Homer Building  
Eleventh Floor South  
601 Thirteenth Street, NW  
Washington, DC 20005  
Direct: (202) 661.6311  
[Loren\\_Monroe@bgrdc.com](mailto:Loren_Monroe@bgrdc.com)  
[www.bgrdc.com](http://www.bgrdc.com)

Appointment

---

**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 10/26/2018 6:39:20 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [woods.clint@epa.gov]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**Subject:** Phone call with Phil Macnabb re: Sterigenics (confirmed)  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 10/29/2018 8:00:00 PM  
**End:** 10/29/2018 8:30:00 PM  
**Show Time As:** Busy

**TO:** Bill Wehrum, David Harlow, Clint Woods, Mandy Gunasekara

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 3/11/2019 2:04:47 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 3/11/2019 8:00:00 PM  
**End:** 3/11/2019 8:30:00 PM  
**Show Time As:** Tentative  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Delivery Report

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**From:** System Administrator [System Administrator]  
**Sent:** 2/19/2019 12:17:05 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Undeliverable: Call with Phil MacNabb re: Sterigenics  
**Attachments:** FW: Call with Phil MacNabb re: Sterigenics

Your message

**To:** Harlow, David  
**Subject:** FW: Call with Phil MacNabb re: Sterigenics  
**Sent:** 2/19/2019 12:17:02 PM

Appointment

---

**From:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Sent:** 2/11/2019 8:21:48 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/19/2019 6:00:00 PM  
**End:** 2/19/2019 6:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/22/2019 4:37:44 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Newton, Cheryl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ae08c2f1c2304a61bf7c01de62f35dbf-Cenewton]; Thiede, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc09fac5acc4ce1ba689fb2ce70d459-Thiede, Kur]; Nelson, Leverett [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2229a07c2cb442b182332d9dcc325f13-LNelson]; Nam, Ed [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a2653f1ddd59470688ba557dd84d9690-Nam, Ed]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aee4ffeaad446bb35e05b24-Brazauskas,]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]

**Subject:** Call with Region 5 re: Sterigenics  
**Attachments:** Re: Sterigenics - foundational support for USEPA's sampling data  
**Location:** WJC - N + **Personal Phone / Ex. 6**

**Start:** 2/22/2019 9:15:00 PM  
**End:** 2/22/2019 10:00:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Justin Schwab, Cheryl Newton, Kurt Thiede, Levertt Nelson, Ed Nam, Joe Brazaskas, Mike Koerber, David Harlow



Re: Sterigenics -  
 foundational sup...

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 9/25/2018 10:05:18 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: RE:  
**Attachments:** Background Materials for Mtg w Willowbrook Leadership 09 21 18 Draft w ORD version2 9-25-18.docx; ATT00001.htm

# Deliberative Process / Ex. 5

Begin forwarded message:

**From:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Date:** September 25, 2018 at 9:40:19 AM EDT  
**To:** "Orme-Zavaleta, Jennifer" <[Orme-Zavaleta.Jennifer@epa.gov](mailto:Orme-Zavaleta.Jennifer@epa.gov)>, "Jackson, Ryan" <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>  
**Subject:** RE:

Draft fact sheet attached with ORD input starting at end of pg 2.

-----Original Message-----

From: Orme-Zavaleta, Jennifer  
 Sent: Tuesday, September 25, 2018 6:21 AM  
 To: Jackson, Ryan <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>  
 Cc: Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
 Subject: Re:

Ord sent our info to oar last fri. Clint and oar adding their piece

Jennifer Orme-Zavaleta, PhD  
 Principal Deputy Assistant Administrator for Science Office of Research and Development US  
 EPA Cell 919-699-1564 DC 202-564-6620 RTP 919-541-2283

On Sep 24, 2018, at 7:34 PM, Jackson, Ryan <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)> wrote:

Is there any news on the ORD draft on EtO?

Ryan Jackson  
Chief of Staff  
U.S. EPA

Personal Phone / Ex. 6

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 11/29/2018 3:33:52 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Re: New documents reveal how Sterigenics, other companies were allowed to emit cancer-causing gas into communities - Chicago Tribune

**Deliberative Process / Ex. 5**

Sent from my iPhone

> On Nov 29, 2018, at 8:24 AM, Woods, Clint <woods.clint@epa.gov> wrote:  
>  
> FYI from Hawthorne (via Rep. Lipinski) on backstory on sterilizer backvents:  
>  
> <https://www.chicagotribune.com/news/local/breaking/ct-met-sterigenics-willowbrook-ethylene-oxide-pollution-20181128-story.html>

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 2/27/2019 10:32:45 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]  
**Subject:** Re: Willowbrook Monitoring

Thanks, Clint

Sent from my iPhone

On Feb 27, 2019, at 5:31 PM, Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)> wrote:

Mike,

Talked to Bill and David, and we're good with extension through March 15.

Thanks!

---

**From:** Koerber, Mike  
**Sent:** Wednesday, February 27, 2019 12:25 PM  
**To:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Cc:** Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** Willowbrook Monitoring

Question: Is OAR okay with us continuing monitoring through at least March 15?

**Deliberative Process / Ex. 5**

me know. Thanks.

Mike

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 11/15/2018 7:02:34 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**CC:** Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]  
**Subject:** Bill's calendar 10/29-11/9

Hi all,

It's calendar week once again. Bill's calendar for 10/29-11/9 is pasted below for review. Please let me know if you have any questions or edits.

Many thanks,  
 Isabel

10/29/2018	9:15AM	Staff briefings	EPA Headquarters
10/29/2018	11:30AM	Meeting with petitioners re: Small Refiner Exemption Litigation	EPA Headquarters
10/29/2018	12:30PM	Staff briefings	EPA Headquarters
10/29/2018	4:00PM	Call with Sterigenics	EPA Headquarters
10/29/2018	4:45PM	Meeting with Federal Railroad Administration	EPA Headquarters
10/30/2018	10:00AM	Staff briefings at EPA's Ann Arbor Lab	Ann Arbor, MI
10/30/2018	1:30PM	Meeting with Detroit Diesel Corporation	Detroit, MI
10/31/2018	9:00AM	Staff briefing	EPA Headquarters
10/31/2018	10:00AM	Meeting with HollyFrontier	EPA Headquarters
10/31/2018	11:00AM	Staff briefings	EPA Headquarters
10/31/2018	4:30PM	Meeting with Michael O'Bannon	EPA Headquarters
11/1/2018	8:30AM	Staff briefings	EPA Headquarters
11/1/2018	11:30AM	Meeting with Nissan	EPA Headquarters
11/1/2018	12:15AM	Staff briefings	EPA Headquarters
11/2/2018	9:30AM	Staff briefings	EPA Headquarters
11/2/2018	5:00PM	Interagency call	EPA Headquarters
11/5/2018	9:30AM	Staff briefings	EPA Headquarters
11/5/2018	4:00PM	Call with Sterigenics	EPA Headquarters
11/6/2018	12:00PM	Staff briefings	EPA Region 2, New York, NY
11/7/2018	9:30AM	Staff briefings	EPA Headquarters
11/7/2018	3:00PM	Meeting with Fiat Chrysler	EPA Headquarters
11/7/2018	4:00PM	Staff briefings	EPA Headquarters
11/8/2018	9:30AM	Interagency meeting	The White House
11/8/2018	11:00AM	Staff briefings	EPA Headquarters
11/9/2018	9:30AM	Staff briefings	EPA Headquarters

11/9/2018	3:00PM	Meeting with Securing America's Future Energy (SAFE)	EPA Headquarters
11/9/2018	4:00PM	Staff briefings	EPA Headquarters

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 9:18:46 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Smith, Darcie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae3c2377efb42879b943db8796ddc05-Smith, Darcie]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]; Chen, Xi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb29e8e6f2064817a3a722f52e000f2b-Chen, Xi]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]

**Subject:** Willowbrook Samples follow Up

**Location:** WJC - N 5400 + Video with RTP

**Personal Phone / Ex. 6**

**Start:** 12/6/2018 4:00:00 PM

**End:** 12/6/2018 4:30:00 PM

**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer






## Message

**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 3/12/2019 8:49:55 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]; Shoaff, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac16fb09cf2c44adb34a7405dc331532-JShoaff]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Calendar/materials for Wed 3/13  
**Attachments:** Draft Internal.Meeting with Stop Sterigenics. Background for Administrator.docx; Press.Release.03-07-19\_.pdf; NTAA questions for EPA Mtg Wednesday March 13.pdf; Wehrum - NTAA Q&As 3.13.19.docx; Wehrum - NTAA Introductory Remarks 3.13.19.docx; Poet Corn Kernel Fiber 3-12-2019 Final.docx; ATT72957; ATT43300; ATT67225; ATT53100; ATT97225; ATT28394; ATT62914; ATT60664; ATT65077; ATT04649; ATT86709; ATT74709; ATT47027; ATT45450; ATT66665; ATT65468; ATT94344; ATT80291; ATT04050; ATT32802

March 2019

▲ Wed, Mar 13



<b>Before 8:00 AM</b>	<b>Free</b>
<b>8:00 AM – 9:00 AM</b>	<b>Free</b>
9:00 AM – 9:30 AM	Meeting with Bill Wehrum and Ryan Jackson
9:30 AM – 10:00 AM	Meeting with Margie Donnell, Joanna Chlystek, Srikant Rao, Urszula Tanouye, Neringa Zymanicus, Gabriela Tejeda-Rios and Melissa Alvado (Stop Sterigenics and Citizens 4 Clean Air)
	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">             Press.Release.0...         </div> <div style="text-align: center;">             Draft            Internal.Meeting ...         </div> </div>
10:00 AM – 12:00 PM	NTAA Meeting (Confirmed) <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 10px;"> <div style="text-align: center;">             Wehrum - NTAA            Introductory Rem...         </div> <div style="text-align: center;">             Wehrum - NTAA            Q&amp;As 3.13.19.do...         </div> <div style="text-align: center;">             NTAA questions            for EPA Mtg We...         </div> </div>



12:00 PM – 12:30 PM	One-on-One with John Shoaff
12:30 PM – 1:00 PM	Book Transportation
1:00 PM – 1:30 PM	Submit WAVES
1:00 PM – 2:00 PM	Interagency Meeting on CAFE
1:00 PM – 2:00 PM	Interagency Meeting on CAFE
2:00 PM – 2:30 PM	Book Transportation
2:30 PM – 3:00 PM	Meeting with Jeff Broin, Jeff Lautt, Kyle Gilley, and Shai Sahay (POET)



Poet Corn Kernel  
Fiber 3-12-2019 ...



<b>3:00 PM – 3:30 PM</b>	<b>Free</b>
3:30 PM – 4:00 PM	One-on-One with Jon Edwards
<b>4:00 PM – 4:30 PM</b>	<b>Free</b>
4:30 PM – 5:00 PM	One-on-One with Sarah Dunham
<b>After 5:00 PM</b>	<b>Free</b>

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stopsterigenics.com

fb.com/groups/stopsterigenics/



twitter.com/stopsterigenics

stopsterigenics@gmail.com

## FOR IMMEDIATE RELEASE

March 7, 2019

### DEMAND FOR PERMANENT RELIEF AT STATE AND FEDERAL LEVELS

Willowbrook, IL - Today the EPA released ambient air testing results from January 27, 2019 through February 11, 2019 – before Sterigenics was shut down. On February 5, 2019 the levels were the highest ever since monitoring started: 26.4 micrograms per cubic meter. **That is 1,320 times the EPA actionable limit!**

Allowing Sterigenics to reopen their ethylene oxide sterilization process under any conditions would place the community, local employees, truck drivers, visitors, our children, and first responders at continued significant risk. Our community has suffered for three decades and has been promised reductions for years. This company is not trusted by the community and no amount of additional regulations will make this community trust that a toxic release wouldn't be in our future. Ethylene oxide sterilization does not belong close to our schools and our residences. The simple fact that emission levels continued to rise despite installation of pollution control measures is tacit proof that there is no way for Sterigenics to control ethylene oxide emissions. It is blatantly apparent that they are unable to adequately contain their emissions, resulting in fugitives poisoning our community.

Ambient air testing results at these extraordinary levels requires that regulators and legislators question the accuracy of the self-reporting over the years, before control measures were put in place. It also requires regulators and legislators to revisit the permits and emission allowances related to ethylene oxide and where these types of facilities are located.

On behalf of the community members and Citizens 4 Clean Air, we demand that the USEPA and Illinois EPA immediately act to permanently shut down Sterigenics. We further demand that all permits be re-opened and regulations be updated to comport with updated science and be consistent with proper regulation of a Group 1 carcinogen. No more testing. We have been poisoned long enough.

Information available at [www.stopsterigenics.com](http://www.stopsterigenics.com)

Please contact [StopSterigenics@gmail.com](mailto:StopSterigenics@gmail.com) for any media requests

NeringaZymancius 847-354-9635

Lauren Kaeseberg 773-517-0622

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 8:17:47 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/10/2018 10:00:00 PM  
**End:** 12/10/2018 10:30:00 PM  
**Show Time As:** Tentative

## Message

**From:** Ringel, Aaron [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1654BDC951284A6D899A418A89FB0ABF-RINGEL, AAR]  
**Sent:** 10/10/2018 3:45:15 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** RE: Rep. Lipinski -- FW: Sterigenics questions

Excellent, thanks!

-Aaron

---

**From:** Harlow, David  
**Sent:** Wednesday, October 10, 2018 11:45 AM  
**To:** Ringel, Aaron <ringel.aaron@epa.gov>  
**Cc:** Woods, Clint <woods.clint@epa.gov>  
**Subject:** RE: Rep. Lipinski -- FW: Sterigenics questions

Aaron,

Clint was on travel yesterday but did have a chance to review these responses. He just indicated to me that he's good with what we have here, and I concur. Thanks!

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Ringel, Aaron  
**Sent:** Wednesday, October 10, 2018 11:20 AM  
**To:** Harlow, David <harlow.david@epa.gov>  
**Cc:** Woods, Clint <woods.clint@epa.gov>  
**Subject:** FW: Rep. Lipinski -- FW: Sterigenics questions

Dave, I sent these to Clint yesterday but also wanted to get any input you might be able to provide on these responses.

Thanks,

-Aaron

**From:** Ringel, Aaron  
**Sent:** Tuesday, October 9, 2018 6:19 PM  
**To:** Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Cc:** Lyons, Troy <[lyons.troy@epa.gov](mailto:lyons.troy@epa.gov)>  
**Subject:** Fwd: Rep. Lipinski -- FW: Sterigenics questions

Clint, see below. I think running these by OAR before sending out is the right move. Thoughts?

Sent from my iPhone

Begin forwarded message:

**From:** "Haman, Patricia" <[Haman.Patricia@epa.gov](mailto:Haman.Patricia@epa.gov)>  
**Date:** October 9, 2018 at 6:05:04 PM EDT  
**To:** "Ringel, Aaron" <[ringel.aaron@epa.gov](mailto:ringel.aaron@epa.gov)>  
**Cc:** "Rodrick, Christian" <[rodrick.christian@epa.gov](mailto:rodrick.christian@epa.gov)>, "Davis, Matthew" <[Davis.Matthew@epa.gov](mailto:Davis.Matthew@epa.gov)>  
**Subject:** FW: Rep. Lipinski -- FW: Sterigenics questions

## Deliberative Process / Ex. 5

**From:** Fortin, Denise  
**Sent:** Tuesday, October 9, 2018 5:33 PM  
**To:** Davis, Matthew <[Davis.Matthew@epa.gov](mailto:Davis.Matthew@epa.gov)>; Haman, Patricia <[Haman.Patricia@epa.gov](mailto:Haman.Patricia@epa.gov)>  
**Cc:** Deamer, Eileen <[deamer.eileen@epa.gov](mailto:deamer.eileen@epa.gov)>; Rowan, Anne <[rowan.anne@epa.gov](mailto:rowan.anne@epa.gov)>; Kelley, Jeff <[kelly.jeff@epa.gov](mailto:kelly.jeff@epa.gov)>; Klasen, Matthew <[Klasen.Matthew@epa.gov](mailto:Klasen.Matthew@epa.gov)>; Lippert, Allison <[lippert.allison@epa.gov](mailto:lippert.allison@epa.gov)>  
**Subject:** Rep. Lipinski -- FW: Sterigenics questions

Hey Matthew:

## Deliberative Process / Ex. 5

Thanks,  
Denise

Denise Fortin  
Congressional/Intergovernmental Liaison  
Office of External Communications  
U.S. Environmental Protection Agency  
312-886-9859

Begin forwarded message:

**From:** "Creswell, Joel" <[Joel.Creswell@mail.house.gov](mailto:Joel.Creswell@mail.house.gov)>  
**Date:** October 5, 2018 at 11:56:34 AM CDT  
**To:** "Deamer, Eileen" <[deamer.eileen@epa.gov](mailto:deamer.eileen@epa.gov)>  
**Cc:** "Fortin, Denise" <[Fortin.Denise@epa.gov](mailto:Fortin.Denise@epa.gov)>, "Lippert, Allison" <[lippert.allison@epa.gov](mailto:lippert.allison@epa.gov)>  
**Subject:** RE: Sterigenics questions

Hi Eileen,

Thanks for the details. Could you please let me know when you receive the full stack test report? Yes, we will let you know when we receive the full stack test report.

Regarding the air sampling, is it necessary to base the sampling locations on the modeling results? I can certainly understand how having the results would be helpful in sampling design, but waiting for them to become available will delay the sampling quite a bit. It seems to me like a grid sampling approach would also yield a good dataset on EtO distribution in the areas surrounding Sterigenics, and could be started right away. Would something like that be possible? My bottom line question is can the sampling start ASAP, rather than waiting for the modeling results to come in? Thank you for the feedback. We understand the desire to start monitoring as soon as possible. However, measuring ethylene oxide in outdoor air is very complex. EPA believes that air dispersion modeling informed by stack testing results will provide a comprehensive picture of ethylene oxide in the air. EPA will use the modeling results to determine the best locations to place canisters for ambient air quality monitoring. EPA will consult with elected officials as it develops the monitoring plan.

Thanks and have a good weekend,

Joel Creswell, Ph.D.  
 Legislative Assistant  
 Congressman Daniel W. Lipinski (IL-03)  
 2346 Rayburn House Office Building  
 202-225-5701 | [joel.creswell@mail.house.gov](mailto:joel.creswell@mail.house.gov)

---

**From:** Deamer, Eileen [<mailto:deamer.eileen@epa.gov>]  
**Sent:** Wednesday, October 03, 2018 4:47 PM  
**To:** Creswell, Joel <[Joel.Creswell@mail.house.gov](mailto:Joel.Creswell@mail.house.gov)>  
**Cc:** Fortin, Denise <[Fortin.Denise@epa.gov](mailto:Fortin.Denise@epa.gov)>; Lippert, Allison <[lippert.allison@epa.gov](mailto:lippert.allison@epa.gov)>  
**Subject:** RE: Sterigenics questions

Hey Joel:

On the Friday, 9/28 conference call, AA Wehrum committed to holding a meeting in DuPage County with elected officials there. Congressman Lipinski may be interested in attending that meeting, and I wanted to ask if any details have been set yet. If not, would you please keep me in the loop as details become available? No details have been set, but we will keep you in the loop.

On the 9/28 call, according to my notes, we were told that it would be several weeks before the 9/20-21 stack test data from Sterigenics could be quality assured, run

through the appropriate models, and released to the public. I was wondering if you have a more concrete estimate for the timing of that release. Sterigenics has 60 days from the completion of the stack tests to provide the stack test reports to Illinois EPA, but may be received sooner. Sterigenics has provided some preliminary, incomplete information already. The preliminary stack test results are on the Willowbrook village website (<http://www.willowbrookil.org/CivicAlerts.aspx>). EPA does not have a concrete timeline for quality assuring the results, running the appropriate models, and releasing the analysis to the public, but will work as expeditiously as possible.

Last week, EPA announced that it would be conducting a new round of air sampling for ethylene oxide in the area around the Sterigenics facility. I'm wondering if you have a timeframe for that happening. The air sampling locations will be contingent, in part, on the modeling results. Again, EPA does not have a concrete timeline monitoring, but will work as expeditiously as possible.

Thanks,

Eileen Deamer  
U.S. EPA Region 5  
Congressional and Intergovernmental  
(312) 886-1728

---

**From:** Creswell, Joel [<mailto:Joel.Creswell@mail.house.gov>]

**Sent:** Wednesday, October 03, 2018 1:05 PM

**To:** Deamer, Eileen <[deamer.eileen@epa.gov](mailto:deamer.eileen@epa.gov)>

**Subject:** Sterigenics questions

Hi Eileen,

I hope you're well. I have a couple of questions for you about the Sterigenics facility in Willowbrook.

On the Friday, 9/28 conference call, AA Wehrum committed to holding a meeting in DuPage County with elected officials there. Congressman Lipinski may be interested in attending that meeting, and I wanted to ask if any details have been set yet. If not, would you please keep me in the loop as details become available?

On the 9/28 call, according to my notes, we were told that it would be several weeks before the 9/20-21 stack test data from Sterigenics could be quality assured, run through the appropriate models, and released to the public. I was wondering if you have a more concrete estimate for the timing of that release.

Last week, EPA announced that it would be conducting a new round of air sampling for ethylene oxide in the area around the Sterigenics facility. I'm wondering if you have a timeframe for that happening.

Thanks,

Joel Creswell, Ph.D.  
Legislative Assistant  
Congressman Daniel W. Lipinski (IL-03)  
2346 Rayburn House Office Building  
202-225-5701 | [joel.creswell@mail.house.gov](mailto:joel.creswell@mail.house.gov)



## Message

**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 2/27/2019 10:27:55 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** RE: Willowbrook Monitoring

Fine with me.

---

Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

---

**From:** Woods, Clint  
**Sent:** Wednesday, February 27, 2019 12:35 PM  
**To:** Wehrum, Bill <Wehrum.Bill@epa.gov>  
**Cc:** Harlow, David <harlow.david@epa.gov>  
**Subject:** Fwd: Willowbrook Monitoring

Bill,

Any concerns? This makes sense to me.

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** February 27, 2019 at 12:24:41 PM EST  
**To:** "Harlow, David" <harlow.david@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>  
**Cc:** "Lewis, Josh" <Lewis.Josh@epa.gov>  
**Subject:** Willowbrook Monitoring

Question: Is OAR okay with us continuing monitoring through at least March 15?

# Deliberative Process / Ex. 5

Mike

## Message

**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/4/2018 8:02:47 PM  
**To:** Chen, Xi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb29e8e6f2064817a3a722f52e000f2b-Chen, Xi]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]; Smith, Darcie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae3c2377efb42879b943db8796ddc05-Smith, Darcie]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]; Cortelyou-Lee, Jan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=75b1eec7b16e46d5b9114935fc6a771e-JCORTELY]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** RE: Meeting re: Willowbrook samples

Got it . Thank you

---

**From:** Chen, Xi  
**Sent:** Tuesday, December 04, 2018 2:53 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>; Rimer, Kelly <Rimer.Kelly@epa.gov>; Smith, Darcie <Smith.Darcie@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Bremer, Kristen <Bremer.Kristen@epa.gov>; Cortelyou-Lee, Jan <Cortelyou-Lee.Jan@epa.gov>  
**Cc:** Harlow, David <harlow.david@epa.gov>  
**Subject:** RE: Meeting re: Willowbrook samples

A minor correction(see below in red).

---

**From:** Koerber, Mike  
**Sent:** Tuesday, December 04, 2018 2:32 PM  
**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>; Smith, Darcie <[Smith.Darcie@epa.gov](mailto:Smith.Darcie@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>; Chen, Xi <[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>  
**Subject:** RE: Meeting re: Willowbrook samples

Thanks

---

**From:** Davis, Alison  
**Sent:** Tuesday, December 04, 2018 2:31 PM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>; Smith, Darcie

<[Smith.Darcie@epa.gov](mailto:Smith.Darcie@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>;  
Chen, Xi <[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>  
**Subject:** RE: Meeting re: Willowbrook samples

This is the text Jan has drafted for the website update – we could share it. We are still finalizing the Qs

December 6, 2018

# Deliberative Process / Ex. 5

---

**From:** Koerber, Mike  
**Sent:** Tuesday, December 04, 2018 2:21 PM  
**To:** Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>; Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Smith, Darcie <[Smith.Darcie@epa.gov](mailto:Smith.Darcie@epa.gov)>;  
Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>; Chen, Xi  
<[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>  
**Subject:** RE: Meeting re: Willowbrook samples

FYI – I sent this summary table to OAR for today's 3:30 pm meeting. Let me know if there is anything else to send.  
Thanks.

<< File: Initial Data - November 2018.pdf >>

-----Original Appointment-----

**From:** Wehrum, Bill  
**Sent:** Monday, December 03, 2018 12:39 PM  
**To:** Wehrum, Bill; Woods, Clint; Koerber, Mike; Rimer, Kelly; Davis, Alison; Smith, Darcie; Weinstock, Lewis; Bremer,  
Kristen; Chen, Xi  
**Cc:** Harlow, David  
**Subject:** Meeting re: Willowbrook samples

**When:** Tuesday, December 04, 2018 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** WJC - N 5400 + Video with RTP + 202-991-0477 + 680-2581

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer

<< Message: Re: Willowbrook samples Nov 14-20 - All spreadsheets >>

Message

---

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 10/31/2018 12:44:27 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Re: Complaint filed against Sterigenics in state court

Thanks for both!

On Oct 31, 2018, at 8:33 AM, Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)> wrote:

Clint,

In case you didn't get/have this already.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

<2018-10-Sterigenics-U-S-LLC-Complaint-FILED-10.pdf>

## Message

**From:** Wood, Anna [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=39055F080135414CA3B8C18D4F578755-AWOOD02]  
**Sent:** 1/29/2019 4:14:00 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Santiago, Juan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c98e3ffe9dd745768928b3f93c24fb36-JSANTIAG]; Rao, Raj [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fffcc4f775941ff9544a3c6eb320daa-RRAO02]  
**Subject:** Re: Question for tomorrow

Great- we will get it in the calendar- safe travels as I understand you all are getting some snow! Anna  
 Sent from my iPhone

> On Jan 29, 2019, at 11:04 AM, Harlow, David <harlow.david@epa.gov> wrote:  
 >  
 > Anna,  
 >  
 > Let's do it at 11:30 a.m.-noon, then, if that works for you all. Since Clint won't be along on this

## Deliberative Process / Ex. 5

>  
 > So, yes, 11:30 a.m. works better for me. Thanks!  
 >  
 > David S. Harlow  
 > Senior Counsel  
 > Immediate Office of the Assistant Administrator  
 > Office of Air and Radiation, USEPA  
 > WJC-N Room 5409K  
 > 1200 Pennsylvania Avenue NW  
 > Washington, DC 20460  
 > 202-564-1233  
 > Harlow.David@epa.gov  
 >  
 > -----Original Message-----  
 > From: Wood, Anna  
 > Sent: Tuesday, January 29, 2019 10:49 AM  
 > To: Harlow, David <harlow.david@epa.gov>  
 > Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>  
 > Subject: Re: Question for tomorrow  
 >  
 > Other option that could work is 1130 am - 1200 noon- please let us know which you prefer- thx  
 >  
 > Sent from my iPhone  
 >  
 >> On Jan 29, 2019, at 10:47 AM, Wood, Anna <Wood.Anna@epa.gov> wrote:  
 >>  
 >> Hi David, do you need to be in the ethylene oxide meeting tomorrow when you are here ? We are trying to find some time to visit with you and are wondering if 1200-1245 would work- Thx  
 >>  
 >> Sent from my iPhone

## Message

**From:** Santiago, Juan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C98E3FFE9DD745768928B3F93C24FB36-JSANTIAG]  
**Sent:** 1/29/2019 4:10:08 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Wood, Anna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=39055f080135414ca3b8c18d4f578755-AWood02]  
**CC:** Rao, Raj [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fffcc4f775941ff9544a3c6eb320daa-RRAO02]  
**Subject:** RE: Question for tomorrow

Thanks David. We will get it on the calendar and find a room for it. Looking forward to catching up...

Juan

-----Original Message-----

From: Harlow, David  
 Sent: Tuesday, January 29, 2019 11:04 AM  
 To: Wood, Anna <Wood.Ann@epa.gov>  
 Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>  
 Subject: RE: Question for tomorrow

Anna,

Let's do it at 11:30 a.m.-noon, then, if that works for you all. Since Clint won't be along on this trip,

## Deliberative Process / Ex. 5

So, yes, 11:30 a.m. works better for me. Thanks!

David S. Harlow  
 Senior Counsel  
 Immediate Office of the Assistant Administrator Office of Air and Radiation, USEPA WJC-N Room 5409K  
 1200 Pennsylvania Avenue NW  
 Washington, DC 20460  
 202-564-1233  
 Harlow.David@epa.gov

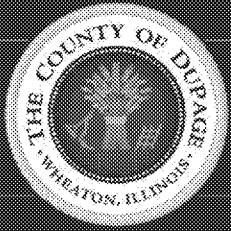
-----Original Message-----

From: Wood, Anna  
 Sent: Tuesday, January 29, 2019 10:49 AM  
 To: Harlow, David <harlow.david@epa.gov>  
 Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>  
 Subject: Re: Question for tomorrow

Other option that could work is 1130 am - 1200 noon- please let us know which you prefer- thx

Sent from my iPhone

> On Jan 29, 2019, at 10:47 AM, Wood, Anna <Wood.Ann@epa.gov> wrote:  
 >  
 > Hi David, do you need to be in the ethylene oxide meeting tomorrow  
 > when you are here ? We are trying to find some time to visit with you  
 > and are wondering if 1200-1245 would work- Thx  
 >  
 > Sent from my iPhone

**DUPAGE  
COUNTY**

**Daniel J. Cronin**  
County Board Chairman

(630) 407-6060  
chairman@dupageco.org

October 9, 2018

Bill Wehrum, Assistant Administrator  
Office of Air & Radiation  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20004

Dear Administrator Wehrum:

Thank you for the opportunity to meet with you and Mr. Clint Woods in your office on September 26 to discuss the serious public health threat facing the citizens of Willowbrook, Illinois due to the operation of the Sterigenics Facility. As a result of our conversation, the USEPA agreed to:

- Perform ambient air testing at sites surrounding the Sterigenics Facility; and
- Improve communication with the community by hosting a town hall meeting and establishing a web page that would include results from both stack testing and ambient air testing in addition to other relevant data.

As a follow-up to our meeting, I would like to inquire as to the specific time frame the air testing will occur and the date of the proposed community meeting. In addition, concerns regarding the safety of the groundwater in the area need to be addressed as many homeowners currently receive their water from private wells.

It is critical that our residents receive accurate and timely information from your agency concerning the health risks associated with the release of ethylene oxide gas.

We would be pleased to help organize the community meeting and stand ready to provide whatever support the USEPA may need as we move forward.

Thank you for your immediate attention to this matter.

Regards,

Daniel J. Cronin  
Chairman  
DuPage County Board





January 29, 2019

**VIA ELECTRONIC DELIVERY**

The Honorable Andrew Wheeler  
Acting Administrator and Deputy Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

Dear Acting Administrator Wheeler:

We write in response to the U.S. Environmental Protection Agency's (EPA) Residual Risk and Technology Assessment (RTR) on Hydrochloric Acid that EPA transmitted to the Office of Management and Budget with little public notice or congressional notification right before the holidays on December 20, 2018. As you know, EPA is required to publish RTRs for a variety of hazards. What is unusual in this specific RTR is that it includes the following language on a tangentially related chemical, ethylene oxide. Specifically, this RTR included the following request:

"These elevated risks are largely driven by an EPA risk value that was updated in late 2016. Although this updated risk value is also responsible for the elevated facility-wide risks calculated here, as noted earlier, these risks are due to emission sources that are not part of the HCl Production source category. Nevertheless, the EPA is interested in receiving public comments on the use of [ethylene oxide's] update[d] risk value for regulatory purposes."

The EPA is charged with safeguarding the environment and defending the public health of all Americans. We are alarmed that hidden inside the 103 page RTR was a troubling information request that appears to be a transparent invitation for the public—including chemical industries—to weaken EPA's forthcoming rules intended to protect Illinoisans and Americans throughout the Nation from elevated levels of cancer risk resulting from exposure to ethylene oxide (EtO). EPA has applied a consistent priority scheme to the sources of data it uses for its rulemakings. If EPA choose not to use its own assessment for determining inhalation risk values, it would contradict the Agency's longstanding policy and put many Americans at risk.

Furthermore, if accurate, this would represent an indefensible capitulation by EPA to the demands of the chemical industry. It is no secret that corporate special interests have been working to undermine and discredit EPA's IRIS program, specifically the recent scientific determination to revise the chemical's carcinogenicity of EtO to be 50 to 60 times more carcinogenic based on an improved model.

Since EPA updated the carcinogenic risk value of EtO, the American Chemistry Council (ACC) has lobbied EPA to withdraw its assessment. The chemical industry appears to be following the

playbook established by the fossil fuel industry when it sought to undermine climate change science and by tobacco companies when they attempted to cover up the danger of their products.

These efforts are bolstered by the presence of former employees at the highest levels of EPA. For example, Nancy Beck, a former lobbyist for ACC and current Deputy Assistant Administrator of Chemical Safety and Pollution Prevention, has long been a critic of EPA's IRIS program – even though EPA's program was praised by the National Academy of Science for its independence from the chemical industry and its systematic review process. Ms. Beck has also specifically criticized EPA's ethylene oxide risk assessment.

On behalf of our constituents and communities across the country, we strongly urge you to publicly commit to at least preserving, if not strengthening, EPA's current risk value of EtO. For several months, our constituents in and around Willowbrook and Lake County, Illinois have lived in fear that the air they breathe now, and breathed for decades, represents an elevated cancer risk. Their fears are grounded in the fact that facilities near them emitting EtO, a known carcinogen, had been vented well above levels deemed safe by EPA for decades.

In pursuit of transparency and to provide our constituents with confidence that EPA is working for the public good and not private profits, please provide our offices with a public commitment that EPA will defend and preserve the independent IRIS determination assessing the carcinogenicity of EtO. Equally important, we request that you publicly promise to rely on updated IRIS risk value determination to guide regulatory activities.

Defending the work of EPA's dedicated career civil servants by rejecting industry lobbyists' attempts to weaken these agency professionals' science-based assessments will go a long way towards increasing confidence in your leadership. Thank you in advance for your consideration of our request. If you have any questions about this request, please contact Radha Adhar from the Office of Senator Duckworth at [Radha\\_Adhar@duckworth.senate.gov](mailto:Radha_Adhar@duckworth.senate.gov) or 202-224-2854.

Sincerely,



Tammy Duckworth  
United States Senator



Richard J. Durbin  
United States Senator



Daniel W. Lipinski  
United States Representative



Bradley S. Schneider  
United States Representative



Bill Foster  
United States Representative



Sean Casten  
United States Representative

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 2/20/2019 7:22:23 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** FW: Latest Willowbrook table and maps  
**Attachments:** 021219 v1 Willowbrook EtO Master Data Table for Web.xlsx; Willowbrook EtO working slides Feb 12 2019.pptx

Just making sure you have this – for today's 2:30 call.

---

**From:** Davis, Alison  
**Sent:** Wednesday, February 13, 2019 5:57 PM  
**To:** Woods, Clint <woods.Clint@epa.gov>  
**Cc:** Koerber, Mike <Koerber.Mike@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>  
**Subject:** FW: Latest Willowbrook table and maps

Hi Clint,

Just checking in to see where we are on approval for posting this data. We'll adjust the shading/footnotes on the table, given that we are not updating any values with this posting.

Also, FYI, the Village of Willowbrook reached out to request a call about their monitoring data (they have been conducting monitoring also). That call has been scheduled for tomorrow.

Thanks.  
 Alison

---

**From:** Koerber, Mike  
**Sent:** Wednesday, February 13, 2019 11:52 AM  
**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>  
**Subject:** Fwd: Latest Willowbrook table and maps

Sent from my iPhone

Begin forwarded message:

**From:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Date:** February 12, 2019 at 3:59:51 PM EST  
**To:** "Josh Lewis" ([Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov))" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Cc:** "Woods, Clint" <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Subject:** FW: Latest Willowbrook table and maps

Josh – Please print a copy of the spreadsheet for Bill.

**Deliberative Process / Ex. 5**

**Deliberative Process / Ex. 5** Also, I'd like to get 30 minutes to talk with Bill and Clint over the next few days to discuss next steps on monitoring. We are only planning to sample through the end of the month and need to make decisions soon if we want to extend the monitoring.

Mike

---

**From:** Weinstock, Lewis

**Sent:** Tuesday, February 12, 2019 3:17 PM

**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>

**Cc:** Chen, Xi <[Chen.Xi@epa.gov](mailto:Chen.Xi@epa.gov)>; McBrian, Jenia <[McBrian.Jenia@epa.gov](mailto:McBrian.Jenia@epa.gov)>; Noah, Greg <[Noah.Greg@epa.gov](mailto:Noah.Greg@epa.gov)>; Thurman, James <[Thurman.James@epa.gov](mailto:Thurman.James@epa.gov)>

**Subject:** Latest Willowbrook table and maps

Hi Mike:

Attached are the latest data for the Willowbrook study – thanks to Doris and Greg for the data review and to James for the wind roses. I used the webinar slide deck for the update so the file is all inclusive. The study's EtO averages to date are updated through January 17, 2019.

Please let us know if you have any questions. Do you want me to forward this information to the technical folks in Region 5 (Compher, Nwia) for their inspection?

Lewis Weinstock | Group Leader | Ambient Air Monitoring Group | Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Phone: 919-541-3661 |

Message

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**From:** EPA Press Office [press=epa.gov@cmail20.com]  
on EPA Press Office [press@epa.gov]  
behalf  
of  
**Sent:** 10/30/2018 2:08:25 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-  
Harlow, Dav]  
**Subject:** EPA Sets the Record Straight After Being Misrepresented in Press

## EPA Sets the Record Straight After Being Misrepresented in Press

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**WASHINGTON** (October 30, 2018) - Recent media reports have inaccurately misrepresented the actions taken by the U.S. Environmental Protection Agency (EPA) to address ethylene oxide (EtO) emissions at the Sterigenics facility in Willowbrook, Illinois. When informed in June 2018 of Region 5's monitoring results, EPA leadership acted decisively, working with state and local governments and others to lower EtO emissions at the facility and communicate risk to the public in a responsible way. Actions taken by EPA leadership include:

- Completed the process to quality assure and provide EPA regions and state coregulators the chance to review the draft [National Air Toxics Assessment \(NATA\)](#), a screening tool that highlights pollutants and emissions sources to study further in order to understand the risk to public health. Based on preliminary data from NATA, EPA regional offices collected additional information to verify initial estimates. (Late 2017 - August 2018)
- Provided technical assistance to contextualize and communicate results of monitoring and modeling conducted by EPA Region 5 around the facility. (June - October 2018)
- Reviewed and approved construction permit application for Sterigenics to install additional pollution controls and protocol for additional stack testing to evaluate pollution control improvements. (June - September 2018)
- Released the [most recent update to the National Air Toxics Assessment \(NATA\)](#), which uses emissions data from the most recent National Emissions Inventory to estimate health risks from toxic air pollutants. The updated NATA estimates that [ethylene oxide](#) significantly contributes to potential elevated cancer risks, based on

chronic, lifetime exposure, in some census tracts across the U.S., and these elevated risks are largely driven by an EPA risk value that was updated in late 2016. EPA offices reached out to state, local, and federal officials to notify them of results. (August 2018)

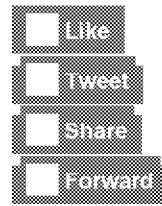
- Continues to update [the ethylene oxide website information](#), including FAQs for Willowbrook and that outlines the two-pronged strategy for addressing EtO: 1) to review regulations for facilities that emit EtO, including the emission standards for commercial sterilizers (the rule that covers the Sterigenics facility in Willowbrook), and 2) to get additional information on EtO emissions to determine whether additional reductions are necessary. (August 2018 - present)
- Observed stack tests conducted to measure the actual emissions from control devices at the facility. (September 2018)
- Received initial stack test results from Sterigenics, indicating a control efficiency above 99 percent. (September 2018)
- Sent a [detailed letter](#) from EPA's Assistant Administrator for Air and Radiation, Bill Wehrum, to top elected leadership in Illinois outlining these actions and detailing plans to conduct additional air quality monitoring and risk assessment. (September 2018)
- Held an in-person meeting at EPA's Chicago office with elected officials and their staff to provide an update on these efforts. (September 2018)
- Received and are reviewing the final, full report from the stack tests conducted on September 20 and 21. The agency will use information from the stack test reports to estimate current emissions from the Sterigenics facility and to inform additional risk assessment and ambient air monitoring work. (October 2018)
- Intends to conduct and communicate air quality monitoring and additional risk assessment activity around the facility. EPA is also engaging elected officials and community leaders to hold an additional public meeting in late November. (November 2018)

###

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Message

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**From:** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 9/26/2018 6:56:47 PM  
**To:** Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**Subject:** Draft Statement

# Deliberative Process / Ex. 5

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Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 10/19/2018 1:03:59 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: Final Stack Test Reports (Email #1 of 2)  
**Attachments:** BV Test Report CL Signed 10182018.pdf; ATT00001.htm; WB1 Test Report and Attachments 10182018.pdf; ATT00002.htm

Begin forwarded message:

**From:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**To:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** FW: Final Stack Test Reports (Email #1 of 2)

FYI – We finally received the stack test reports on Thursday afternoon.

---

**From:** Hoffman, Kathy [<mailto:KHoffman@sterigenics.com>]  
**Sent:** Thursday, October 18, 2018 6:06 PM  
**To:** Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>  
**Cc:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Subject:** FW: Final Stack Test Reports (Email #1 of 2)

Kelly:

We finalized the test reports today. Attached are the final stack test reports.

Let me know if you have any questions or need any further information.

Regards,  
 Kathy

---

**From:** Hoffman, Kathy  
**Sent:** Thursday, October 18, 2018 4:24 PM  
**To:** Armitage, Julie ([Julie.Armitage@Illinois.gov](mailto:Julie.Armitage@Illinois.gov)); Nam, Ed ([nam.ed@epa.gov](mailto:nam.ed@epa.gov))  
**Subject:** Final Stack Test Reports (Email #1 of 2)

We have finalized the Willowbrook back vent test reports. See attached letter and reports.

Thank you for your assistance with this project and the compliance testing.

Let me know if you have any questions.

Regards,

Kathy

Kathleen Hoffman

Senior Vice President - Global Environmental, Health & Safety and Technical Services

Sterigenics, A Sotera Health Company

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October 18, 2018

Illinois Environmental Protection Agency  
Construction Permits  
BOA/DAPC/Permit Section  
Attn: Daniel Rowell, Environmental Engineer  
1021 North Grand Avenue East  
Springfield, IL 62794

RE: Emission System Performance Test Report  
Sterigenics' Willowbrook Facility – ID No. 043110AAC, Permit No. 95120085

Dear Mr. Rowell:

As required in the Construction Permit (Application no. 18060020) issued June 26, 2018, enclosed are final reports of the performance tests conducted for the Sterigenics Willowbrook control systems at our facilities located at:

Sterigenics - Willowbrook I  
7775 South Quincy Street  
Willowbrook, IL 60521

Sterigenics - Willowbrook II  
830 Midway Drive  
Willowbrook, IL 60521

The testing was conducted on September 20<sup>th</sup> for Willowbrook II and September 21<sup>st</sup> for Willowbrook I. The testing demonstrated the emission systems to be operating above the required 99.0% control efficiency. Specifically, the Willowbrook I facility's AAT scrubber system and the Willowbrook II AAT scrubber system demonstrated a control efficiency of  $\geq 99.6179\%$  and  $\geq 99.5133\%$ , respectively, when treating backvent emissions.

Please contact me at [khoffman@sterigenics.com](mailto:khoffman@sterigenics.com) if you have any questions.

Sincerely,

Kathleen Hoffman  
Senior VP of EH&S and Technical Services

**REPORT OF  
AIR POLLUTION SOURCE TESTING  
OF AN ETHYLENE OXIDE EMISSION-CONTROL SYSTEM  
OPERATED BY STERIGENICS, US, LLC  
IN WILLOWBROOK, ILLINOIS  
ON SEPTEMBER 21, 2018**

**WILLOWBROOK I FACILITY**

Submitted to:

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
1021 North Grand Avenue East  
Springfield, Illinois 62794**

Submitted by:

**STERIGENICS US, LLC.  
2015 Spring Road  
Oak Brook, Illinois 60523**

**I.D. Number 043110AAC**

Prepared by:

**ECSI, INC.  
PO Box 1498  
San Clemente, California 92674-1498**

**OCTOBER 18, 2018**

*ECSi*

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**TEST DATE**

Friday, September 21, 2018

**REGULATORY AGENCY**

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**TESTING CONTRACTOR**

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## 1.0 INTRODUCTION

On Friday, September 21, 2018, ECSi, Inc. performed air pollution source testing of an ethylene oxide (EtO) emission-control device operated by Sterigenics US, LLC at their Willowbrook I ethylene oxide sterilization facility located at 7775 Quincy Street. The control device tested was a two-stage Advanced Air Technologies (AAT) Safe Cell emission-control system, comprised of a packed-tower chemical scrubber and a dry-bed reactor, used to control emissions from fourteen sterilizer backvents, and three aeration rooms.

The purpose of the testing program was to demonstrate compliance with the conditions established in Section 6 of the Construction Permit (Application No: 18060020) granted to Sterigenics by the Illinois Environmental Protection Agency (IEPA) to control emissions from the sterilization chamber backvents. See Appendix L.

Test Protocols were submitted and approved by IEPA prior to testing. Copies of protocols and approval are included with Appendix L.

Representatives from Sterigenics were present during the testing as well as personnel listed below:

- Kevin Mattison, IEPA
- Ned Shappley, US EPA, OAQPS
- Margaret Sieffert, US EPA, Region 5
- Paul Farber, PE (Consultant for Village of Willowbrook)
- Lawrence Link, Tri-State Fire Department

## 2.0 EQUIPMENT

The gas sterilization and emission control equipment in Willowbrook I consists of the following:

- Fourteen Sterilizers, each comprised of a steam-heated sterilization chamber, a vacuum pump chamber evacuation system, and a backvent valve;
- Three aeration rooms, each comprised of a heated aeration space.

Chamber vacuum pump emissions are controlled by:

- One Chemrox DEOXX packed tower chemical scrubber, equipped with a packed reaction/interface column, a scrubber fluid recirculation system, and a scrubber fluid reaction/storage tank.

Chamber backvents, and aeration emissions are controlled by:

- One two-stage Advanced Air Technologies (AAT) Safe Cell emission-control system, comprised of a packed-tower acid/water scrubber (SC1), equipped with a packed reaction/interface column, a scrubber fluid recirculation system, and a scrubber fluid reaction/storage tank, and a dry bed reactor/scrubber (SC2), comprised of a bank of solid-bed reaction vessels containing Safe-Cell IIA Reactant for EtO control, connected in parallel, installed downstream of SC1 and upstream of a dedicated blower exhaust system designed to operate at 15,500 cfm.

The facility has also been granted permission in its permit to direct chamber vacuum pump emissions to the AAT system. This operating scenario is rarely utilized, and will not be studied in this testing program.

### 3.0 RULE/COMPLIANCE REQUIREMENTS

The EtO gas-sterilization system at the Willowbrook I facility was tested to demonstrate compliance with requirements specified in the Construction Permit issued by IEPA (Application No: 18060020) and CAAPP Permit No: 043110AAC. The following requirements must be met:

- The existing emission control equipment for chamber exhaust and aeration room emissions is required by 40 CFR Part 63, Subpart O to achieve a control efficiency of 99% or greater.
- Chamber backvent emissions are not regulated through the federal regulations at 40 CFR Part 63, Subpart O. By way of permit application 18060020, Sterigenics has voluntarily elected to control backvent emissions using existing emission control equipment at the facility already required to achieve 99% or greater control efficiency.

Testing is required to demonstrate continued compliance with these requirements.

## 4.0 TESTING

EtO source testing was conducted in accordance with the procedures outlined in US EPA Reference Methods 2, 3, 4 and 18. EtO emissions monitoring was conducted simultaneously at the inlet and outlet of the AAT System during the 15-minute duration of the backvent process. Three 15-minute test runs were performed.

### 4.1 TEST SCENARIO

Once a sterilization chamber cycle ends, a sample from inside the chamber is taken and measured to ensure the EtO concentrations are below 25% of the lower explosive limit (LEL) for safety reasons. Current controls interlocks will not allow the doors to be open if the concentration of EtO at the end of a cycle exceeds 25% LEL. Once this criterion has been met, the process requires the chamber door to be partially opened for 15 minutes which vents the EtO in the chamber to reduce levels in the chamber and exposure to employees. The 15-minute duration ensures the highest concentration of EtO is removed from the chamber prior to unloading the product. During this venting, EtO exhausts through the backvent and to the AAT scrubber. In accordance with the facility's procedures, workers are not allowed to enter or unload the chamber until the 15-minute time period has passed. Once the 15-minutes has passed, the product is unloaded to the aeration room.

To meet Condition 6 of the Construction Permit which requires conditions for testing to be conducted as representative of maximum emissions, each test run was completed on the backvents using freshly sterilized product from one chamber for a 15-minute duration, for a total of three test runs at each facility.

The emission testing of the sterilization chambers occurred while running FDA validated cycles with higher ending EtO concentrations for testing. Each test interval tested the first 15 minutes the backvent is opened and exhausted to the AAT scrubber.

### 4.2 PROCESS PARAMETERS MONITORED

Based on the overall AAT scrubber liquor storage volume, relatively short duration of the test, and knowledge of the operation of the AAT system, the properties of the AAT scrubber liquor were not expected to change significantly during the test. Because of this, the AAT Scrubber tank level, pH, and glycol concentration (measured via refractometer) were monitored and recorded before and after the performance of the three trial runs. Results are presented in Appendix A.

Cycle information for each test run, including ending EtO concentration in the chamber space, also was provided. Emission levels from aeration also were recorded before performance of the three test runs. Results are presented in Appendix A.

During routine operations, weekly concentration sampling of the AAT system is conducted using samples collected from the AAT system outlet using a Tedlar bag and the facility's gas chromatograph system. Since this performance testing involved real-time analysis of the inlet and outlet concentrations of the AAT system, Tedlar bag sampling was not conducted during these tests.

#### **4.3 TESTING EQUIPMENT**

Testing equipment information and certifications are located in Appendix G.

## 5.0 TEST METHOD REFERENCE

### 5.1 INTRODUCTION

EtO source testing was performed in accordance with US EPA Reference Methods 1, 2, 3, 4 and 18. EtO emissions monitoring was conducted simultaneously at the inlet and outlet of the AAT System during each 15-minute duration of the backvent process. A total of three test runs was performed.

During backvent testing, EtO emissions at the inlet and the outlet of the AAT Safe Cell System were determined using direct source sample injection into the gas chromatograph (GC). The GC used to analyze EtO concentrations was a SRI Model 8610 (also described in Section 5.3).

US EPA Method 1: Sample and Velocity Traverses for Stationary Sources (40 CFR 60 Appendix A)

Sample ports and flow traverse locations were located at the inlet and outlet of the AAT control device. Numbers of flow traverse locations were selected to exceed those recommended by Tables 1.1 and 1.2, and were spaced throughout the duct in accordance with Method 1. The average angle of cyclonic flow at each traverse point was less than the maximum average angle specified in Method 1. For further information on sample port locations, sample and velocity traverses, and cyclonic flow measurements please see Appendix B.

US EPA Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) (40 CFR 60 Appendix A).

The average gas velocity in a stack is determined from the gas density and from measurement of the average velocity head with a Type S (Stausscheibe or reverse type) Pitot tube. This method was used in its entirety as per the procedures outlined in Method 2.

ESCI performed a cyclonic flow check and velocity traverse using an S-type Pitot tube in each duct prior to the first test run. These results were used to calculate EtO mass flow rates. ESCI also used a standard Pitot tube constructed in accordance with Method 2C to measure velocity at a single point in the duct during the test runs to verify that gas flow rate remained steady during tests.

### US EPA Method 3: Gas Analysis for the Determination of Dry Molecular Weight (40 CFR 60 Appendix A)

The Construction permit at 6(b) specifies testing using Method 3A or 3B (for calculating the dry molecular weight of the duct gases based on measurement of the duct gas oxygen and carbon dioxide concentrations). In accordance with Method 2, Section 8.6 and the approved Test Protocol, a dry molecular weight of 29.0 was assumed instead of by calculation. This is in accordance with Method 2 and is allowed by Method 3 because the process does not involve combustion and emits essentially ambient air.

### US EPA Method 4: Determination of Moisture Content in Stack Gases (40 CFR 60 Appendix A)

The moisture concentrations in the duct gases were calculated assuming saturated conditions based on the measured gas temperature, duct static pressure and barometric pressure, in accordance with Method 4(16.4). For calculations pertaining to this method, see Appendix D.

- Barometric pressure was determined using local meteorological data from the time and date of the actual testing. See Appendix F.
- Duct static pressure was determined using an inclined oil manometer.
- Duct gas temperature was determined using from a type K thermocouple and thermometer.

### US EPA Method 18: Measurement of Gaseous Organic Compound Emissions by Gas Chromatography

The major organic component of the gas mixture, EtO is separated by gas chromatography (GC). Measurement of EtO concentrations across the inlet/outlet ducts are expected to be uniform due to extensive air mixing throughout the emission control system. During backvent operations, constituents of the streams entering and exiting the AAT System were analyzed at a single point by an SRI, Model 8610, portable GC, equipped with the following: dual, heated sample loops and injectors; dual columns; and dual detectors. A flame ionization detector (FID) was used to quantify inlet EtO emissions, and photoionization detector (PID) was used to quantify low-level EtO emissions at the emission control system outlet. The PID was equipped with a 11.7eV lamp. For chromatographic data associated with the use of this method, see Appendix E. The sample transport system is described in Section 5.4 of this report.

Samples were continuously extracted and analyzed at approximately one- to two-minute intervals, for a total of 12 to 13 samples, during each 15-minute test run.

## 5.2 VOLUMETRIC FLOW MEASUREMENT

Exhaust gas flow at the inlet and outlet of the AAT scrubber was determined by Method 2, using an S-type pitot tube and an inclined-oil manometer. Sampling ports were located in accordance with Method 1. The test ports were located far enough from any flow disturbances and velocity was measured at multiple points within the duct cross-section to permit accurate flow measurement. Equal-area traverse points for pre-test velocity traverses were selected in accordance with Method 1. Confirmation of the absence of cyclonic flow occurred prior to the commencement of the three test runs. Please see Appendices B and F for additional Method 1 related information.

Because of the short duration of the backvent operation, traversing the entire stack during each minute of test run was infeasible. With approval of IEPA and US EPA, an average differential pressure point was determined before the test, and that parameter was used to confirm flow during each minute while concentration samples were collected. Please see Appendix F for tables of this information collected in the field.

Temperature measurements were obtained from a type K thermocouple (FLIR EA10) and thermometer attached to the sampling probe. Exhaust gas composition was assumed to be air saturated with water vapor.

## 5.3 CONTROL EFFICIENCY AND MASS EMISSIONS MEASUREMENT

During backvent operations, constituents of the streams entering and exiting the AAT System were analyzed by an SRI, Model 8610, portable gas chromatograph (GC), equipped with the following: dual, heated sample loops and injectors; dual columns; and dual detectors. A flame ionization detector (FID) was used to quantify inlet EtO emissions, and photoionization detector (PID) was used to quantify low-level EtO emissions at the emission control system outlet. The PID was equipped with an 11.7eV lamp. The mass of EtO in the inlet and outlet streams were determined using equation shown below in Section 5.9. EtO mass control efficiency during the backvent process was calculated by comparing the mass of EtO vented to the system inlet to the mass of EtO vented from the system outlet. See equation shown in Section 5.9.

## 5.4 SAMPLE TRANSPORT

The Willowbrook I facility utilizes a dual stage AAT system equipped with a 15,500 cfm rated blower system that serves to quickly draw process emissions from the sources through the control system. The AAT Scrubber system efficiency operates at a very high level in large part due to the use of sulfuric acid in the scrubber liquor, which lowers the pH of the solution and acts as a catalyst - increasing the speed of the hydrolysis of ethylene oxide to ethylene glycol.

The gas sample was continuously pumped to the GC at approximately 1000 cubic centimeters per minute (cc/min) from the sample probe through two 100-foot lengths of heated and insulated 3/8" Teflon® sample line (.030 wall), each with an interior volume of approximately 1535 cubic centimeters. The source gas was pumped to the GC with a response time of approximately 1.5 seconds. See Appendix H for sample line volume and residence time calculations.

The lines were heated to  $\geq 110$  °C. Temperature of the heated lines was monitored before, during and after each trial run via observing the temperature on the heated lines temperature controller. See Appendix A for this data. The sample probe was constructed of stainless steel tubing and was not heated.

At the inlet of the Safe Cell System, the sampling ports were located in the duct immediately upstream of the packed tower scrubber. At the outlet of the AAT System, sampling ports were located in the exhaust stack downstream of the dry bed reactors. See Appendix B for sampling port location information.

## 5.5 GC INJECTION

Source-gas samples were then injected into the GC which was equipped with two heated sampling loops, each containing a volume of approximately 2 cubic centimeters (cc) and maintained at 100 degrees Celsius (°C). Injections occurred at approximately one to two-minute intervals during backvent testing. Helium was the carrier gas for both the FID and the PID.

## 5.6 GC CONDITIONS

The packed columns for the GC were both operated at 90 °C. The columns were stainless steel, 6 feet long, 0.125 inch outer diameter, packed with 1 percent SP-1000 on 60/80 mesh Carbopack B.

During the analysis, the FID was operated at 250 °C. The support gases for the FID were hydrogen (99.995% pure) and air (99.9999% pure). Any unused sample gas was vented from the GC system back to the inlet of the control device being tested.

## 5.7 CALIBRATION STANDARDS

The FID was calibrated for mid-range part-per-million-by-volume (ppmv) level analysis using gas proportions similar to the following:

- 1) 1000 ppmv EtO, balance nitrogen \*\*\*
- 2) 100 ppmv EtO, balance nitrogen
- 3) 50 ppmv EtO, balance nitrogen (audit gas)
- 4) 10 ppmv EtO, balance nitrogen
- 5) 1 ppmv EtO, balance nitrogen

\*\*\*Note: Calibrations for this standard were performed following the test to confirm appropriate range of instrument.

The PID was calibrated for low-range ppmv level analyses using gas proportions similar to the following:

- 1) 100 ppmv EtO, balance nitrogen
- 2) 50 ppmv EtO, balance nitrogen (audit gas)
- 3) 10 ppmv EtO, balance nitrogen
- 4) 1 ppmv EtO, balance nitrogen

See Appendix J for calibration gas certifications. Please see Appendix I for triplicate calibration data performed before and after each set of test runs and calibration curves.

As a part of the test's quality assurance, limit of detection and recovery studies were performed. Refer to that section later in the document and Appendices K and I, respectively for further information.

## 5.8 SAMPLING DURATION

Testing was performed in 15-minute increments in conjunction with normal production operations, for each of the three test runs while chamber backvents were operating.

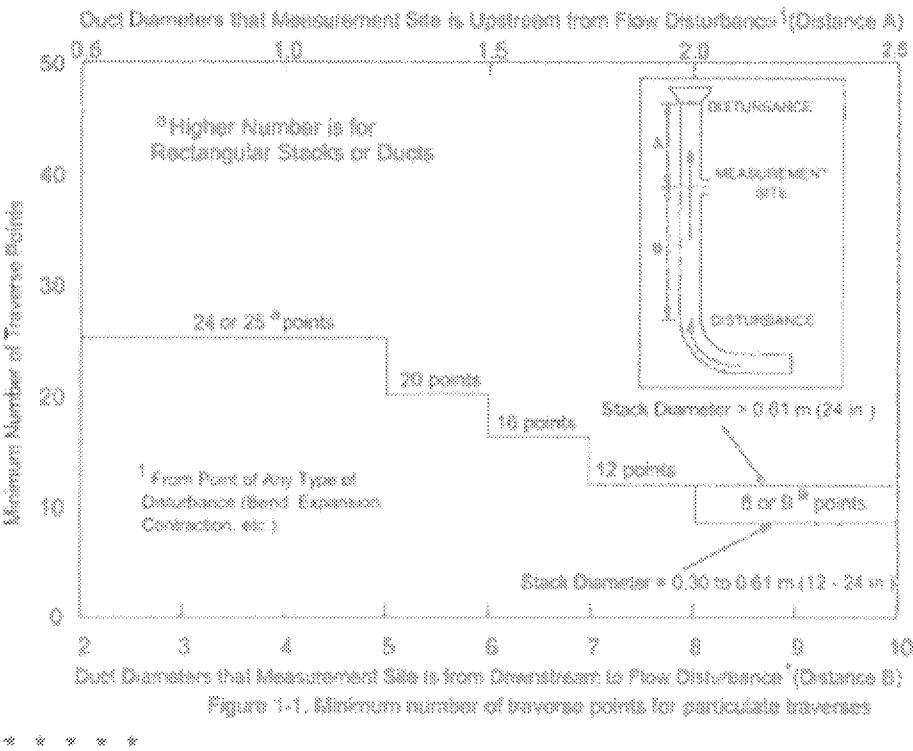
5.9 SAMPLE CALCULATIONS

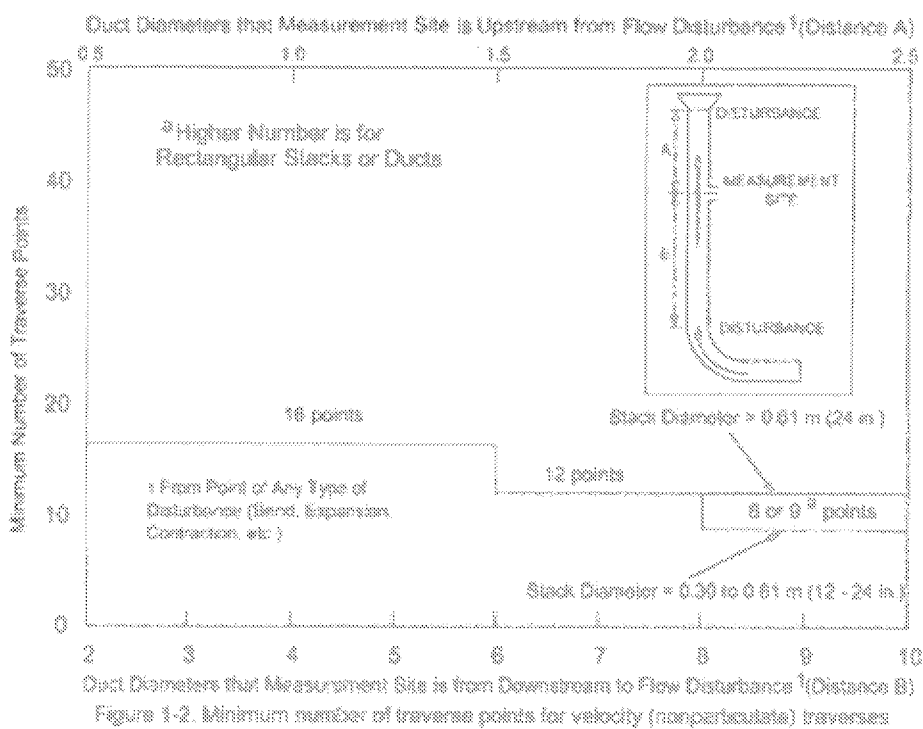
Method 1

Equivalent diameter was calculated as follows:

$$D_e = \frac{2(L)(W)}{L + W}$$

Actual diameters of round ducts and equivalent diameters of square and rectangular ducts were used to evaluate whether sufficient distance existed between the sample ports and upstream and downstream flow disturbances. These figures were used in conjunction with Method 1's Table 1.1 and 1.2 to ensure that the minimum number of traverse points required for testing was exceeded.





**Method 2**

Stack gas velocity and volumetric flow rate were calculated using equation 2-7 and 2-8 as outlined in Method 2.

Q = Average Stack Gas Dry Volumetric Flow Rate (dscf/min)

$$= 60 (1 - B_{ws}) V_s A \left| \frac{T_{std} P_s}{T_{s(abavg)} P_{std}} \right|$$

$V_s$  = Average Stack Gas Velocity

$$V_s = K_p C_p \left[ \frac{\sum_{i=1}^n \sqrt{\Delta p_i}}{n} \right] \sqrt{\frac{T_{s(abavg)}}{P_s M_s}}$$

Where:

$K_p$  = Velocity equation constant

$$= 85.49 \frac{ft}{sec} \left[ \frac{(lb/lb-mole)(in. Hg)}{(^{\circ}R)(in. H_2O)} \right]^{1/2}$$

$C_p$  = Pitot Tube Coefficient = 0.84 (S-type pitot tube coefficient for geometric calibration)

$\Delta p_i$  = Individual velocity head reading at traverse point "i" (in. Hg)

$n$  = number of traverse points

$T_{s(abavg)}$  = Average absolute stack temperature ( $^{\circ}R$ )

$P_s$  = Absolute stack pressure ( $P_{bar} + P_g$ )

$P_{bar}$  = Barometric pressure at measurement site (in. Hg)

$P_g$  = Stack static pressure (in. Hg)

$M_s$  = Molecular weight of stack gas, wet basis

$$M_s = M_d (1 - B_{ws}) + 18.0 B_{ws}$$

#### Method 4

Moisture content was determined using the calculation for saturation in accordance with Method 4.

$$B_{ws(svp)}(\%) = 3000 \left( \frac{29.92 \left( \frac{1000}{29.92 + T_{s(abvg)}} \right)}{\left( P_b + \frac{P_{static}}{2.04} \right)} \right)$$

Where:

$B_{ws(svp)}(\%)$  = Saturated moisture concentration (% by volume)

$T_{s(abvg)}$  = Average absolute stack temperature (°F)

$P_b$  = Barometric pressure at measurement site (in. Hg)

$P_{static}$  = Stack static pressure (in. H<sub>2</sub>O)

#### Mass Emission Calculation

Mass emissions of EtO during backvent were calculated using the following equation:

$$W = (Q)(\text{MolWt})(C/10^6)/(\text{MolVol})$$

Where:

$W$  = EtO mass flow rate, pounds per minute

$Q$  = Corrected duct gas volumetric flow rate, dry standard cubic feet per minute at 68 degrees F and 29.92 in. Hg (see calculation under Method 2)

$\text{MolWt}$  = 44.05 pounds EtO per pound mole

$C$  = EtO concentration, parts per million by volume

$10^6$  = Conversion factor, ppmv per "cubic foot per cubic foot"

$\text{MolVol}$  = 385.32 cubic feet per pound mole at 68 degrees F and 29.92 in. Hg

#### Control Efficiency Calculation

Mass control efficiency of EtO during backvent was calculated using the following equation:

$$\text{Efficiency} = (W_i - W_o / W_i)(100)$$

Where:

$W_i$  = Mass flow rate to the control device inlet, pounds per minute, calculated as described above where:

$C_i$  = EtO concentration at the control device inlet, ppm

$Q_i$  = Duct gas volumetric flow rate at the control device inlet, dry standard cubic feet per minute

$W_o$  = Mass flow rate from the control device outlet, pounds per minute calculated as described above where:

$C_o$  = EtO concentration at the control device outlet

$Q_o$  = Duct gas volumetric flow rate at the control device outlet, dry standard cubic feet per minute

Results of the control-efficiency testing are presented in Section 8.0 and in Table 1 and 2.

## 6.0 TEST SCENARIO

Backvent testing was performed during normal process load conditions, with freshly sterilized product in the sterilization chambers. Three test runs were conducted in series to verify the performance of the emission-control system.

Sterigenics scheduled three chambers to end the sterilization cycle to allow for the three test runs to run consecutively. The general testing sequence was as follows:

Timing	Task	Method
Prior to test	Sample locations established	Method 1
Prior to test	Sample traverse locations established	Method 1
One time prior to each set of runs	3-point calibration performed in triplicate.	Method 18
One time prior to each set of runs	Confirm absence of cyclonic flow	Method 1
One time prior to each set of runs	Collect AAT system scrubber liquor pH, tank level, and glycol % information. Note levels present from aeration.	N/A
One time prior to each set of runs	Flow traverse of inlet and outlet conducted to establish flow rate and measurement centroid	Method 2
Prior to each test run	Note temperature reading of heated lines	N/A
Over test duration	Chamber door opened approximately 12 inches, actuator switch activates backvent	N/A
Beginning of each run	First sample initiated	Method 18
Over test duration	Samples at inlet and outlet taken approximately every 1-minute for a total of 15-minutes	Method 18
Over test duration	Flow monitoring sampled approximately every 1-minute.	Method 2
Mid-Test	Note temperature reading of heated lines	Method 18
After each test run	Collect cycle number and ending backvent EtO concentration in chamber head space are noted	N/A
After each test run	Note temperature reading of heated lines	Method 18
After each test run	Conduct recovery study	Method 18
After conclusion of each set of test runs	Perform post calibration checks	Method 18
After conclusion of each set of test runs	Collect AAT system scrubber liquor pH, tank level, and glycol %.	N/A
One time following each set of runs	Obtain meteorological data for sampling time	N/A
At least once during two test days for WB I and WB II	Perform Limit of Detection Study	Method 18

## 7.0 QA/QC

### 7.1 FIELD TESTING QUALITY ASSURANCE

At the beginning of the test, the sampling system was leak checked at a vacuum of 15 inches of mercury. The sampling system was considered leak free when the flow indicated by the rotameters fell to zero.

At the beginning of the test, a system blank was analyzed to ensure that the sampling system was free of EtO. Ambient air was introduced at the end of the heated sampling line and drawn through the sampling system line to the GC for analysis. The resulting chromatogram also provided a background level for non-EtO components (i.e. ambient air, carbon dioxide, water vapor) which are present in the source gas stream due to the ambient dilution air which is drawn into the emission-control device, and due to the destruction of EtO by the emission-control device which produces carbon dioxide and water vapor. This chromatogram, designated ambient background, is included with the calibration data in Appendix I.

A recovery study was also performed in accordance with Section 8.4.1 of Method 18 using 10 ppm and 100 ppm EtO calibration gas. The 100 ppm calibration gas was drawn through the heated sample line used at the control device inlet, and the 10 ppm calibration gas was drawn through the heated sample line used at the control device outlet. The calibration procedure was repeated in this manner, and it was verified that the analyzer response was within 10% of the calibration gas concentration sampled. See calibration data in Appendix I for further information regarding the recovery study.

### 7.2 CALIBRATION PROCEDURES

The GC system was calibrated at the beginning and conclusion of each day's testing. Using the Peaksimple II analytical software, a calibration curve was constructed for each detector. Calibration data can be found in Appendix I.

A seven-point Method Detection Limit (MDL) or Limit of Detection (LOD) study was performed prior to testing using procedures described in Section 15.0 of US EPA Method 301 (40 CFR 63 Appendix A) and in 40 CFR 136 Appendix B. The study was recommended by OAQPS and accepted by IEPA. The LOD for this test was determined to be 0.10 ppm. A recovery study was also performed in accordance with Section 8.4.1 of Method 18 using 10 ppm and 100 ppm EtO calibration gas. The 100 ppm calibration gas was drawn through the heated sample line used at the control device inlet, and the 10 ppm calibration gas was drawn through

the heated sample line used at the control device outlet. The calibration procedure was repeated in this manner, and it was verified that the analyzer response was within 10% of the calibration gas concentration sampled. Results of the LOD study are presented in Appendix K. Results of the recovery study are presented in Appendix I.

All calibration gases and support gases used were of the highest purity and quality available. A copy of the laboratory certification for each calibration gas is attached as Appendix J.

## 8.0 TEST RESULTS

The AAT Safe Cell System demonstrated an EtO control efficiency of greater than 99.62 percent. In accordance with various state and federal requirements, this control equipment must have an EtO control efficiency of 99 percent or more. The AAT Safe Cell System has met this requirement.

The test results are summarized in Tables 1 and 2. These tables include results for EtO control efficiency of the emission-control device. Sample calculations related to destruction efficiency and other calculations can be found in Section 5.9.

**TABLES 1 AND 2**

## APPENDICES

*ECSi*

**APPENDIX A**  
**Process Parameter Logs**

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**APPENDIX B**  
**Method 1 Calculation**

*ECSi*

**APPENDIX C**  
**Method 2 Calculation**

*ECSi*

**APPENDIX D**  
**Method 4 Calculation**

*ECSi*

**APPENDIX E**  
**Chromatograms - Backvent**

*ECSi*

## APPENDIX F

### Field Data

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## APPENDIX G

### Testing Equipment Information

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## APPENDIX H

### Sample Line Residence Time

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APPENDIX I  
Calibration Data

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**APPENDIX J**  
**Gas Certifications**

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**APPENDIX K**  
**Limit of Detection**

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**APPENDIX L**  
**Permits/Protocols**

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**TABLES 1 AND 2**

**TABLE 1**  
**ETHYLENE OXIDE CONTROL EFFICIENCY SUMMARY – BACKVENT**  
**FOR STERIGENICS - WILLOWBROOK, ILLINOIS (PLANT 1)**  
**ON SEPTEMBER 21, 2018**

Test Run	Inlet Average Concentration (ppm)	Inlet Average Mass Flow rate (lb/min)	Outlet Average Concentration (ppm) <sup>1</sup>	Outlet Average Mass Flow rate (lb/min) ≤	Control Efficiency ≥
1	65.6	0.0012	ND	0.0000018	99.62%
2	27.93	0.00053	ND	0.0000018	99.65%
3	23.43	0.00044	ND	0.0000018	99.58%

**Control Efficiency ≥ 99.6179%**

$$\text{Efficiency} = (\text{MassFlowin} - \text{MassFlowout} / \text{MassFlowin})(100)$$

$$\text{Mass Flow (lb/min)} = (\text{VolFlow})(\text{MolWt})(C / 10^6) / (\text{MolVol}) / 60$$

Inlet VolFlow= 9877 dscfm

Outlet VolFlow = 9570 dscfm

MW EtO = 44.05

MolVol = 385.32

C = Concentration

[1] ND = non detect. Detection limit (LOD) of the GC was determined to be 0.1 ppm.

**TABLE 2 - ETHYLENE OXIDE CONTROL EFFICIENCY – BACKVENT  
FOR STERIGENICS - WILLOWBROOK, ILLINOIS (PLANT 1)  
ON SEPTEMBER 21, 2018**

Run Number	Time	INLET ETO		OUTLET ETO		Control Efficiency <sup>4</sup> ≥
		Concentration (PPM) <sup>1</sup>	Mass Flow <sup>3</sup> (lb/min)	Concentration (PPM) <sup>1,2</sup>	Mass Flow <sup>3</sup> (lb/min) ≤	
1	914	11.5	0.00022	ND	0.0000018	99.1575%
1	915	542	0.01020	ND	0.0000018	99.9821%
1	916	38.9	0.00073	ND	0.0000018	99.7509%
1	917	34.5	0.00065	ND	0.0000018	99.7192%
1	918	27.6	0.00052	ND	0.0000018	99.6489%
1	919	26.8	0.00050	ND	0.0000018	99.6385%
1	920	27	0.00051	ND	0.0000018	99.6411%
1	921	23.1	0.00043	ND	0.0000018	99.5806%
1	923	26.4	0.00050	ND	0.0000018	99.6330%
1	924	24	0.00045	ND	0.0000018	99.5963%
1	925	23.7	0.00045	ND	0.0000018	99.5912%
1	926	23.5	0.00044	ND	0.0000018	99.5877%
1	927	23.2	0.00044	ND	0.0000018	99.5824%
2	931	24	0.00045	ND	0.0000018	99.5963%
2	932	22.5	0.00042	ND	0.0000018	99.5694%
2	933	42.3	0.00080	ND	0.0000018	99.7709%
2	934	31.3	0.00059	ND	0.0000018	99.6904%
2	935	28.8	0.00054	ND	0.0000018	99.6636%
2	936	28.7	0.00054	ND	0.0000018	99.6624%
2	937	28.5	0.00054	ND	0.0000018	99.6600%
2	939	26.7	0.00050	ND	0.0000018	99.6371%
2	940	26.8	0.00050	ND	0.0000018	99.6385%
2	941	26.4	0.00050	ND	0.0000018	99.6330%
2	942	26.9	0.00051	ND	0.0000018	99.6398%
2	943	25	0.00047	ND	0.0000018	99.6124%
2	944	25.2	0.00047	ND	0.0000018	99.6155%
3	953	23.1	0.00043	ND	0.0000018	99.5806%
3	954	22.8	0.00043	ND	0.0000018	99.5750%
3	955	27.8	0.00052	ND	0.0000018	99.6515%
3	956	26	0.00049	ND	0.0000018	99.6273%
3	957	23.8	0.00045	ND	0.0000018	99.5929%
3	958	23	0.00043	ND	0.0000018	99.5787%
3	1000	22.3	0.00042	ND	0.0000018	99.5655%
3	1001	22.8	0.00043	ND	0.0000018	99.5750%
3	1002	22.8	0.00043	ND	0.0000018	99.5750%
3	1003	23.4	0.00044	ND	0.0000018	99.5859%
3	1004	21.7	0.00041	ND	0.0000018	99.5535%
3	1006	21.7	0.00041	ND	0.0000018	99.5535%

## Notes

[1] PPM = parts per million by volume

[2] ND = non detect. Detection limit of the GC was determined to be 0.1 ppm

[3] See Table 1 for Mass Flow Calculation

[4] See Table 1 for Control efficiency calculation

## APPENDICES

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**APPENDIX A**  
**Process Parameter Logs**

*ECSi*

## PROCESS PARAMETER LOG FOR EACH TRIAL

DATE: 21 SEP 2018SITE AAT TESTED (circle one) Willowbrook I Willowbrook II

Chamber Backvent Tested:	A	
Chamber Running Cycle Number:	183 6 pellet chamber ~ 4/6 pellets	
Parameter	START (Data and Time)	FINISH (Data and Time)
Backvent Opening Time	9:12 AM	9:27 AM
Levels From Aeration	11 ppm 9:09 AM 10.9 ppm 9:10 AM	not recorded
Ending Chamber EO Concentration	7020 ppm EO	

	Beginning (Time)	Middle (Time)	End (Time)
Heated Lines Temp Check Include Temp Units	230 F / 230 F 9:10 AM	230 F / 230 F 9:17 AM	230 F / 230 F 9:27 AM

## PROCESS PARAMETER LOG FOR EACH TRIAL

DATE: 21 SEP 2018SITE AAT TESTED (circle one): Willowbrook I Willowbrook II

Chamber Backvent Tested:	3 6 pellet chamber w/ 6 pellets	
Chamber Running Cycle Number:	169	
Parameter	START (Data and Time)	FINISH (Data and Time)
Backvent Opening Time	9:30 am	9:45 am
Levels From Aeration	not recorded	not recorded
Ending Chamber EO Concentration	2760 ppm EO	

	Beginning (Time)	Middle (Time)	End (Time)
Heated Lines Temp Check Include Temp Units	230 F / 230 F	230 F / 230 F	230 F / 230 F

9:36 AM

9:40 AM

9:45 AM

## PROCESS PARAMETER LOG FOR EACH TRIAL

DATE: 21 SEP 2018

SITE AAT TESTED (circle one): Willowbrook I Willowbrook II

Chamber Backvent Tested:	10 13 pallet chamber w/ 12 pallets	
Chamber Running Cycle Number:	510	
Parameter	START (Data and Time)	FINISH (Data and Time)
Backvent Opening Time	9:52am	10:07am
Levels From Aeration	not recorded	not recorded
Ending Chamber EO Concentration	0 ppm EO	

	Beginning (Time)	Middle (Time)	End (Time)
Heated Lines Temp Check Include Temp Units	230 F / 230 F	230 F / 230 F	230 F / 230 F
	9:55 AM	9:59 AM	10:07 AM

## PROCESS PARAMETER LOG FOR EACH SET OF TRIALS

Circle One: Willowbrook 1 AAT Willowbrook 2 AAT

Parameter	BEFORE (Time)	AFTER (Time)
AAT Tank Level (inches)	151" 8:12 AM	144" 10:20 AM
AAT Liquor pH	0.87 8:12 AM	0.87 10:20 AM
AAT Liquor Glycol %	36.2% 8:12 AM	36.4 10:20 AM

Samples collected by:

Signature:

DATE:

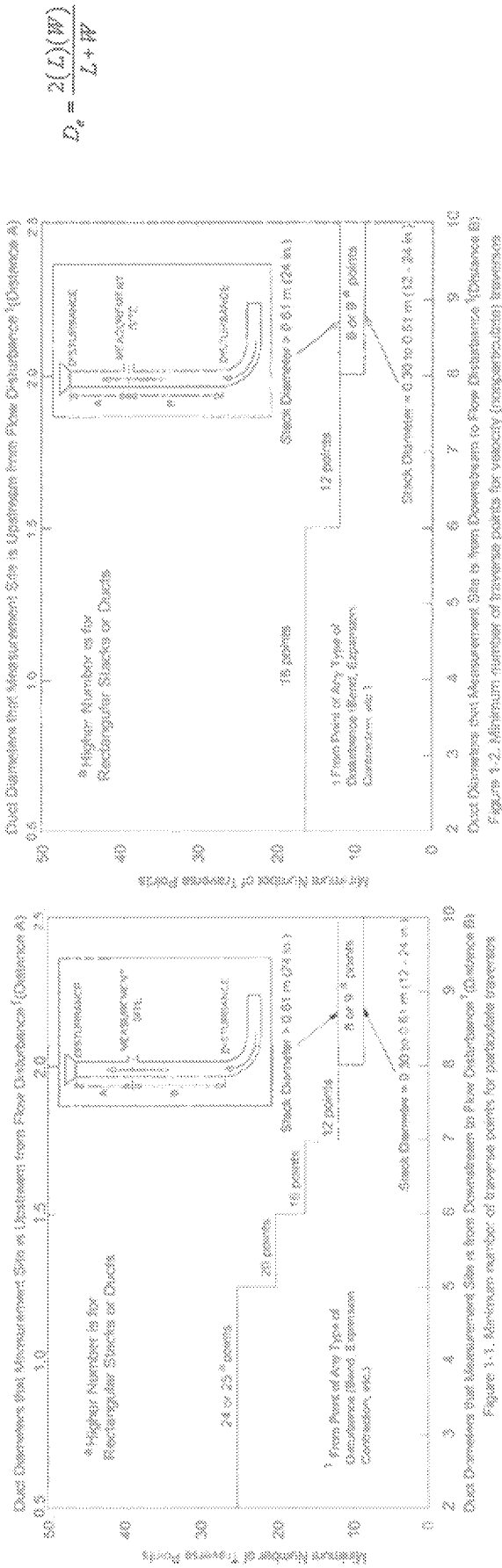
21 SEP 2018

PLEASE ATTACH TODAY'S METEOROLOGICAL DATA TO THESE TEST RECORDS

**APPENDIX B**  
**Method 1 Calculation**

*ECSi*

WB Sample Port Locations	Duct Size/Configuration	Length (Diameter)	Width	Diameter (Eq. Diameter)	Distance from/to Disturbance	Diameters from/to Disturbance	2D or greater downstream?	0.5D or greater upstream?
WB I Inlet	36" round	36		36	Downstream	2.2	YES	
WB I Outlet	30" x 20" rectangular	30	20	36	Upstream	1.2		YES
WB II Inlet	28" round	28		24	Downstream	2.5	YES	
WB II Outlet	28" square	28	28	28	Upstream	3.5		YES
				28	Downstream	3.9	YES	
				28	Upstream	3.4		YES
				28	Downstream	2.0	YES	
				28	Upstream	6.1		YES



$$D_p = \frac{M + L}{2} \left( \frac{L}{M} \right)^2$$

Willowbrook 1 AAT Inlet Duct Sampling Location



Photo Description – Photo taken in WB1 Chamber C Room, looking towards roof near room entrance. North and AAT control device is to the left.

### Willowbrook I Inlet Duct Sampling Duct Location Diagram

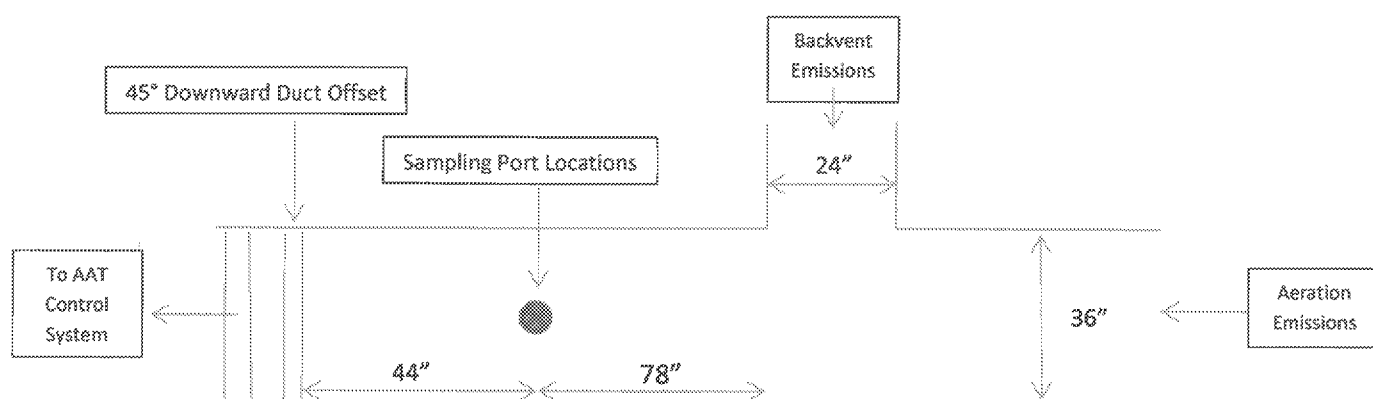


Diagram Description – Diagram depicts inlet duct configuration seen in photo, looking towards roof. All ducts are circular, with given diameters. 44" and 78" are measurements to nearest disturbances in the duct from sample port location.

Sampling port depicted is facing Chamber C Room floor. An additional port will be located on the duct 90° from depicted port.

Willowbrook 1 AAT Outlet Duct Sampling Location



Photo Description – Photo taken in WB1 AAT Drybed Room, looking Southeast. Duct is rectangular until it transitions near the roofline.

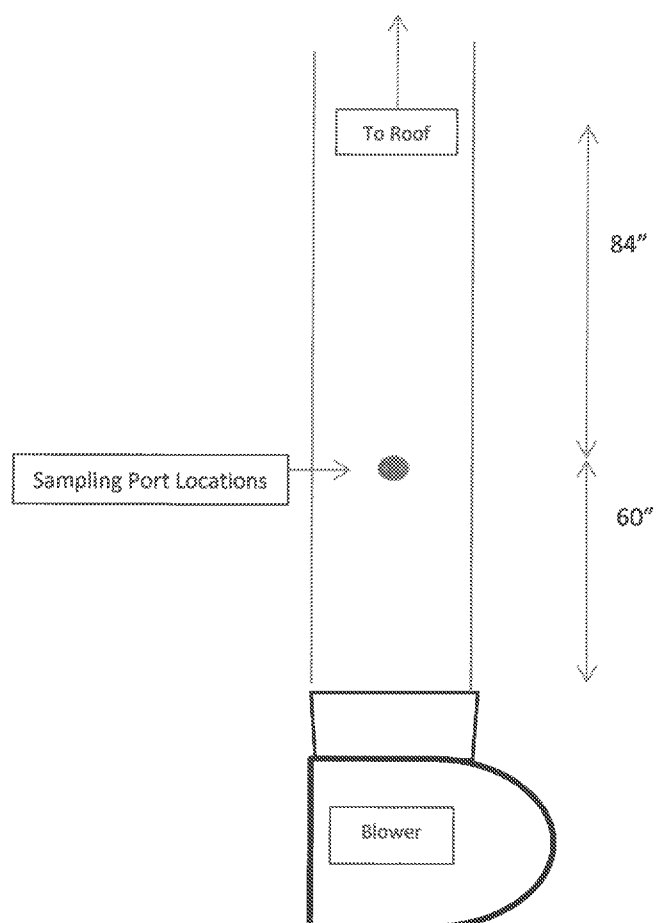
Willowbrook I Outlet Sampling Duct Location Diagram

Diagram Description – Diagram depicts outlet duct sampling configuration in AAT Drybed Room seen in photo, with a slightly more perpendicular view to the duct, towards the south. The main run of ducting where the samples will be obtained is a 30" x 20" rectangular duct. 84" and 60" are measurements to nearest duct disturbances.

**APPENDIX C**  
**Method 2 Calculation**

*ECSi*

**ECSi, Inc.**  
**Volumetric Flow Calculation - AAT Inlet**  
**Sterigenics US, LLC - Willowbrook, IL (Plant 1)**  
**9/20/2018**

Data from Traverse Table			Constants		
Average SQRT( $\Delta p$ )	0.4644	from Traverse Table	MW dry =	29.00	
Temp	103.0	°F	stack diameter =	36	in.
	563	°R	stack area =	7.07	sq. ft.
			Tstd =	528	
			Pstd =	29.92	
Moisture Content	7.30%		Cp =	0.84	
Ms	28.20	molecular weight of stack gas	Kp =	85.49	
Pb	28.95	Barometric pressure (in Hg)			
Pg	-0.25	Stack static pressure (in H2O)			
Ps	28.932	Absolute stack pressure			

Stack Velocity (Vs) = 27.7 ft/sec

$$V_s = K_p C_p \left[ \frac{\sum_{i=1}^n \sqrt{\Delta P_i}}{n} \right] \sqrt{\frac{T_s(abavg)}{P_s M_s}}$$

Stack Flow (inlet)= 11749 acf/min

$Q_{actual} = 60 \cdot V_s \cdot A_s$

Stack Flow (inlet) = 9877 dscfm

$$Q = 60 (1 - B_{ws}) V_s A \left| \frac{T_{std} P_s}{T_{s(abavg)} P_{std}} \right|$$

ECSI, Inc.  
Volumetric Flow Calculation - AAT Outlet  
Sterigenics, Inc. - Willowbrook, IL (Plant 1)  
9/20/2018

Data from Traverse Table

Average SQRT( $\Delta p$ )	0.7718	from Traverse Table
Temp	107.3	$^{\circ}\text{F}$
	567	$^{\circ}\text{R}$
Moisture Content	8.20%	
Ms	28.10	molecular weight of stack gas
Pb	28.95	Barometric pressure
Pg	0.25	Stack static pressure
Ps	28.97	Absolute stack pressure

Constants

MW dry =	29.00	
stack dimensions =	20x30	in.
stack area =	4.17	sq. ft.
Tstd =	528	
Pstd =	29.92	
Cp =	0.84	
Kp =	85.49	

Stack Velocity ( $V_s$ ) = 46.3 ft/sec

$$V_s = K_p C_p \left[ \frac{\sum_{i=1}^n \sqrt{\Delta P_i}}{n} \right] \sqrt{\frac{T_{s(abavg)}}{P_s M_s}}$$

Stack Flow (outlet)= 11568 acf/min

$$Q_{actual} = 60 \cdot V_s \cdot A_s$$

Stack Flow (outlet) = 9570 dscfm

$$Q = 60 (1 - B_{ws}) V_s A \left| \frac{T_{std} P_s}{T_{s(abavg)} P_{std}} \right|$$

ECSI, INC. - VELOCITY TRAVERSE DATA

Client: Sterigenics

Location: Willowbrook - Plant 1

Source: AAT Safe Cell System Inlet

Run #: 1

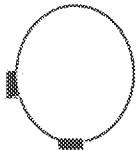
Probe Type: S

Stack I.D.: 36 in.

Date: 9/21/2018

Baro Press: 28.95

Port Sketch:



Port 1										Port 2									
Inches From Port	Point#	Delta P				Stack Temp (F)	Cyclonic Angle	Point#	Delta P				Stack Temp (F)	Cyclonic Angle					
		Low	High	Average	Sq Root				Low	High	Average	Sq Root							
0.7	1	0.25	0.25	0.25	0.5000	101	1.5	1	0.21	0.21	0.21	0.4583	103	5.0					
2.4	2	0.15	0.15	0.15	0.3873	101	5.6	2	0.22	0.22	0.22	0.4690	103	4.6					
4.2	3	0.18	0.18	0.18	0.4243	102	2.0	3	0.21	0.21	0.21	0.4583	103	3.6					
6.3	4	0.2	0.2	0.2	0.4472	102	1.8	4	0.25	0.25	0.25	0.5000	103	5.1					
9.0	5	0.21	0.21	0.21	0.4583	102	1.0	5	0.23	0.23	0.23	0.4796	103	3.0					
12.9	6	0.25	0.25	0.25	0.5000	103	0.5	6	0.25	0.25	0.25	0.5000	103	2.6					
23.1	7	0.21	0.21	0.21	0.4583	104	1.0	7	0.16	0.16	0.16	0.4000	103	8.8					
27.0	8	0.23	0.23	0.23	0.4796	104	1.4	8	0.19	0.19	0.19	0.4359	103	6.3					
29.7	9	0.19	0.25	0.22	0.4690	104	2.4	9	0.24	0.24	0.24	0.4899	103	4.1					
31.8	10	0.19	0.19	0.19	0.4359	104	0.5	10	0.22	0.22	0.22	0.4690	103	2.2					
33.6	11	0.26	0.26	0.26	0.5099	105	1.5	11	0.26	0.26	0.26	0.5099	102	2.8					
35.3	12	0.19	0.19	0.19	0.4359	105	1.8	12	0.22	0.22	0.22	0.4690	103	2.1					
	13							13											
	14							14											
	15							15											
	16							16											
	17							17											
	18							18											
	19							19											
	20							20											
	21							21											
	22							22											
	23							23											
	24							24											
Average Values:										0.2167	0.4644	103.0	3.0						

09/12/2018 Bot sketch.






































Stack I.D.: 20x30

ED\_002408\_00000445-00059

**APPENDIX D**  
**Method 4 Calculation**

*ECSi*

Sterigenics - Willowbrook 1 - AAT Inlet  
9/21/2018

Saturate Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \left( \frac{10^{\left( 6.691 - \left( \frac{3144}{T_{s(avg)} + 390.86} \right) \right)}}{\left( P_b + \frac{P_{static}}{13.6} \right)} \right)$$

Ts	<u>103</u>	stack temperature (F)
Pb	<u>28.95</u>	barametreric pressure (in Hg)
ps	<u>-0.25</u>	static pressure of stack (in H2O)

Bws(svp) = 7.30 %

Sterigenics - Willowbrook 1 - AAT Outlet  
9/21/2018

Saturate Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \left( \frac{10^{\left( 6.691 - \left( \frac{3144}{T_{s(avg)} + 390.86} \right) \right)}}{\left( P_b + \frac{P_{static}}{13.6} \right)} \right)$$

Ts	<u>107</u>	stack temperature (F)
Pb	<u>28.95</u>	barametreric pressure (in Hg)
ps	<u>0.25</u>	static pressure of stack (in H2O)

Bws(svp) = 8.20 %

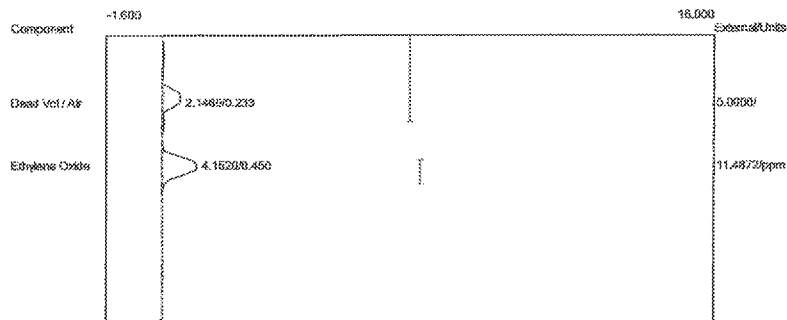
## APPENDIX E

### Chromatograms - Backvent

*ECSi*

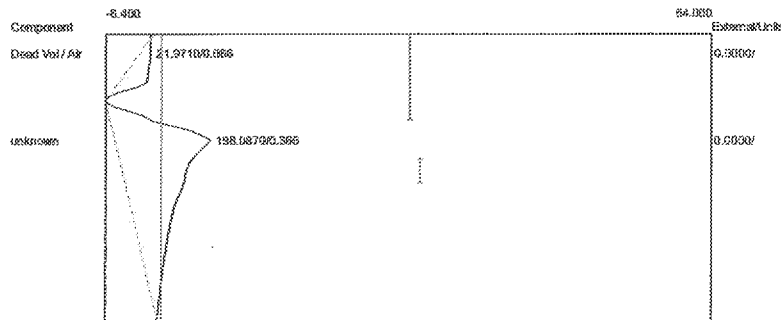
**TEST RUN 1**

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:14:01  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B01.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.1460	0.0000	
Ethylene Oxide	0.450	4.1520	11.4872	ppm
		6.2980	11.4872	

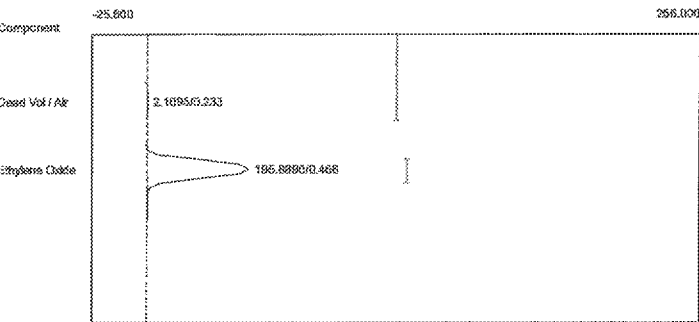
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:14:01  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B01.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



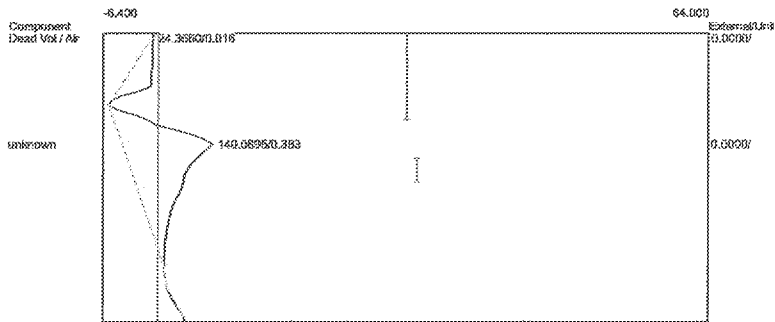
Component	Retention	Area	External	Units
Dead Vol / Air	0.066	21.9710	0.0000	
		21.9710	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:15:04  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B02.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:15:04  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B02.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.1095	0.0000	
Ethylene Oxide	0.466	195.8890	541.9599	ppm
		197.9985	541.9599	



Component	Retention	Area	External	Units
Dead Vol / Air	0.016	24.3660	0.0000	
		24.3660	0.0000	

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: Run#1BV

Analysis date: 09/21/2018 09:16:13

Method: Direct Injection

Description: CHANNEL 1 - FID

Column: 1% SP-1000, Carbopack B

Carrier: HELIUM

Temp. prog: eto-100.tem

Components: eto1-100.cpt

Data file: 1Ster1WB2018-1B03.CHR (c:\peak359)

Sample: AAT Inlet

Operator: D. Kremer

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: Run#1BV

Analysis date: 09/21/2018 09:16:13

Method: Direct Injection

Description: CHANNEL 2 - PID

Column: 1% SP-1000, Carbopack B

Carrier: HELIUM

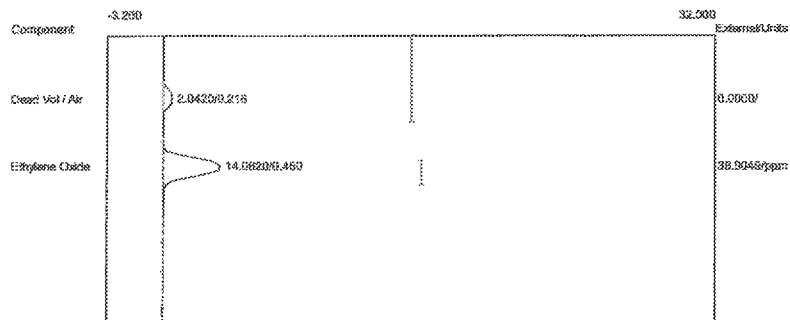
Temp. prog: eto-100.tem

Components: eto2-100.cpt

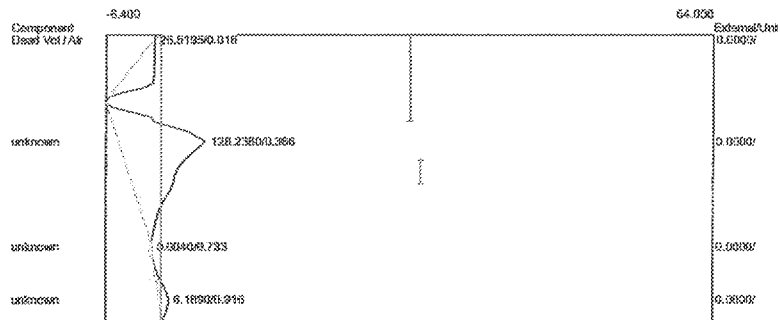
Data file: 2Ster1WB2018-1B03.CHR (c:\peak359)

Sample: AAT Outlet

Operator: D. Kremer



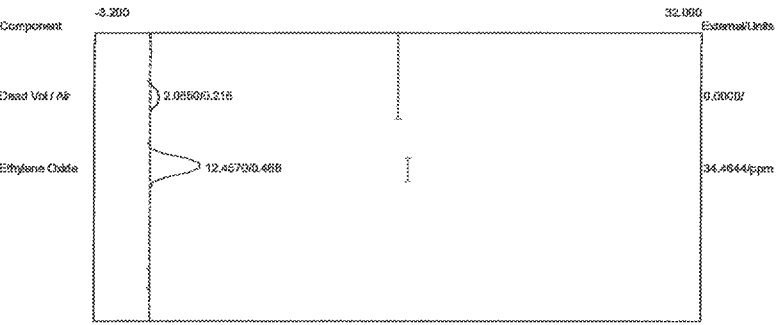
Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.0420	0.0000
Ethylene Oxide	0.450	14.0620	38.9049 ppm
		16.1040	38.9049



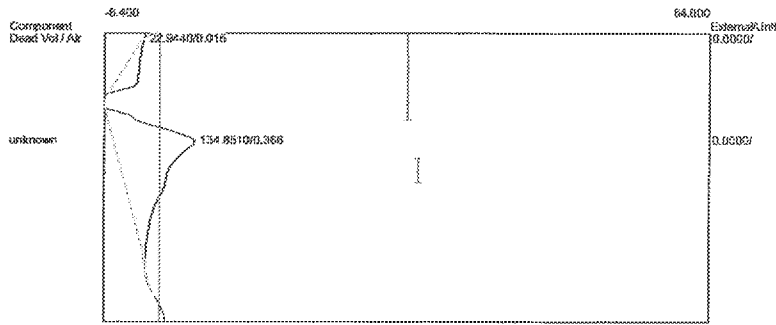
Component	Retention	Area	External Units
Dead Vol / Air	0.016	26.5195	0.0000
		26.5195	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:17:19  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B04.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:17:19  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B04.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



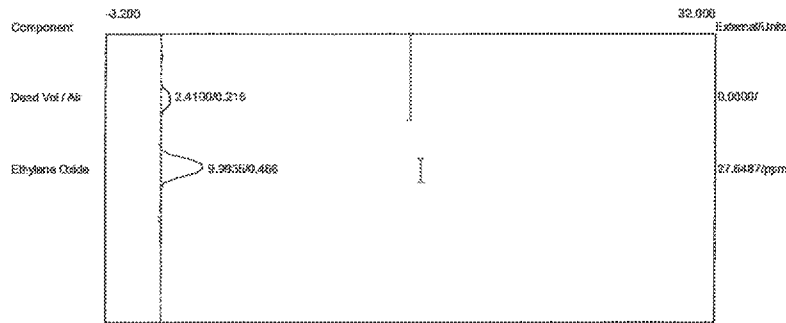
Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.0850	0.0000	
Ethylene Oxide	0.466	12.4570	34.4644	ppm
		14.5420	34.4644	



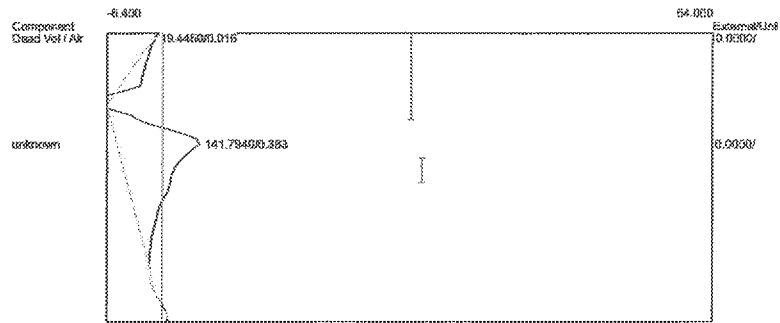
Component	Retention	Area	External	Units
Dead Vol / Air	0.016	22.9440	0.0000	
		22.9440	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:18:24  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B05.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:18:24  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B05.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



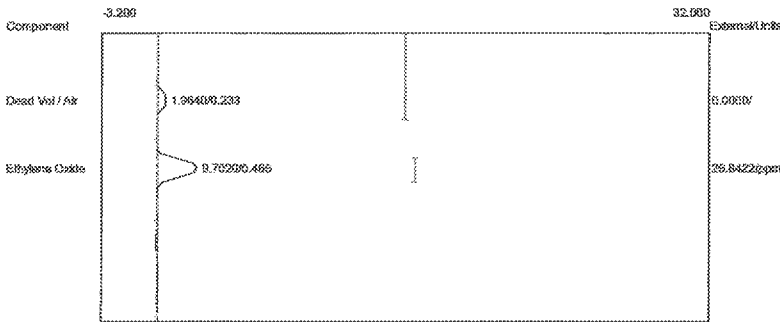
Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.4100	0.0000	
Ethylene Oxide	0.466	9.9935	27.6487 ppm	
		12.4035	27.6487	



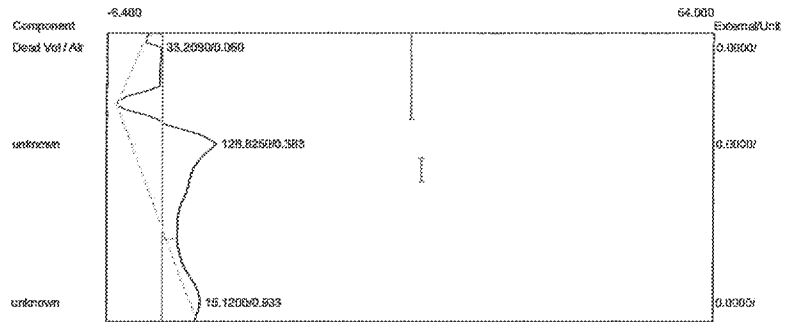
Component	Retention	Area	External	Units
Dead Vol / Air	0.016	19.4450	0.0000	
		19.4450	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:19:34  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B06.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:19:34  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B06.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

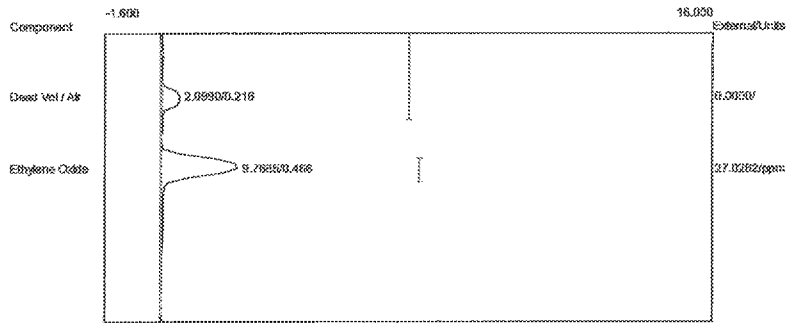


Component	Retention	Area	External Units
Dead Vol / Air	0.233	1.9640	0.0000
Ethylene Oxide	0.466	9.7020	26.8422 ppm
		11.6660	26.8422



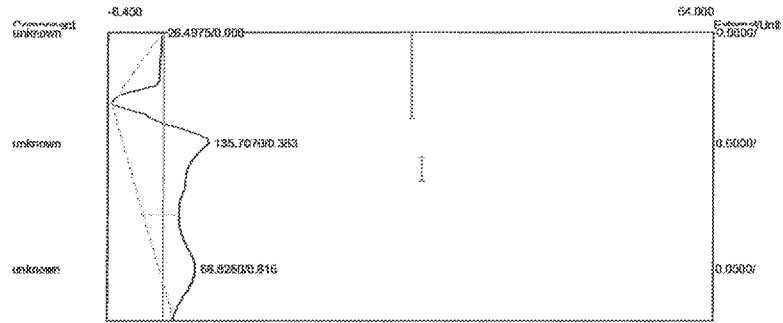
Component	Retention	Area	External Units
Dead Vol / Air	0.050	33.2090	0.0000
		33.2090	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:20:50  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B07.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



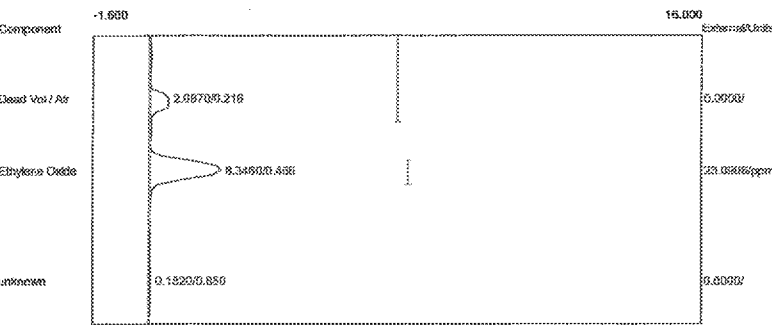
Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.0990	0.0000
Ethylene Oxide	0.466	9.7685	27.0262 ppm
		11.8675	27.0262

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:20:50  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B07.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



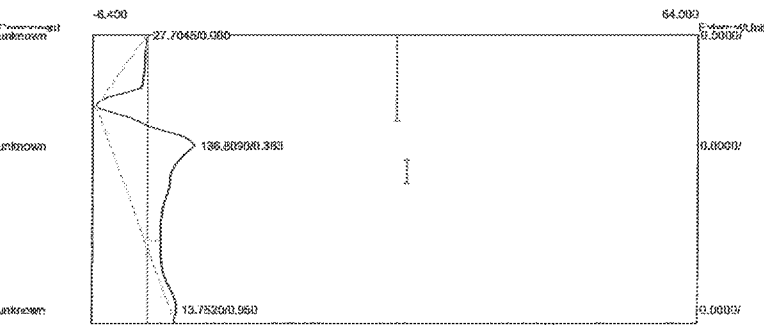
Component	Retention	Area	External Units
unknown	0.4975	26.4975	0.0000
unknown	135.7071	135.7071	0.0000
unknown	66.5283	66.5283	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:21:58  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B08.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.0870	0.0000	
Ethylene Oxide	0.466	8.3460	23.0906 ppm	
		10.4330	23.0906	

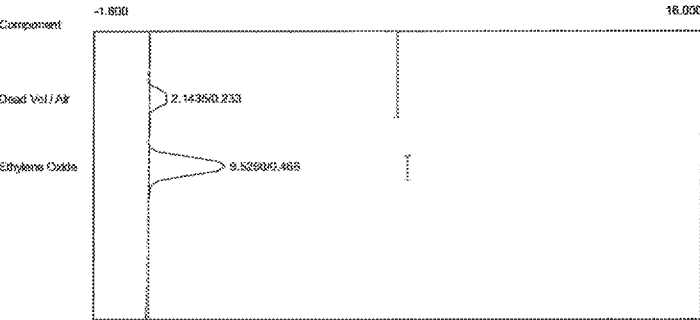
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:21:58  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B08.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



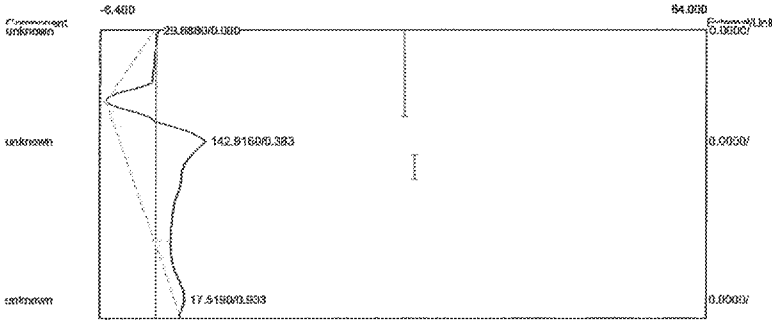
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:23:07  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B09.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:23:07  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B09.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



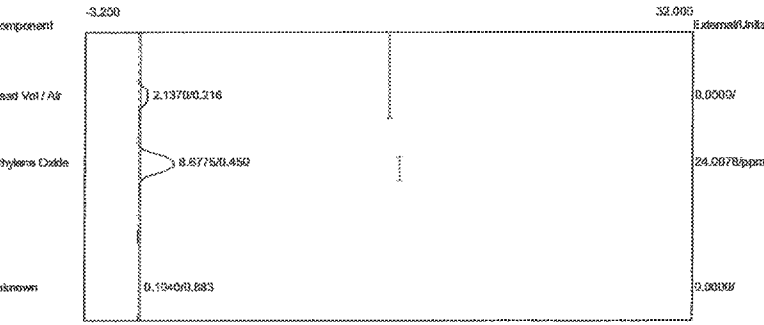
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1435	0.0000
Ethylene Oxide	0.466	9.5260	26.3553 ppm
		11.6695	26.3553



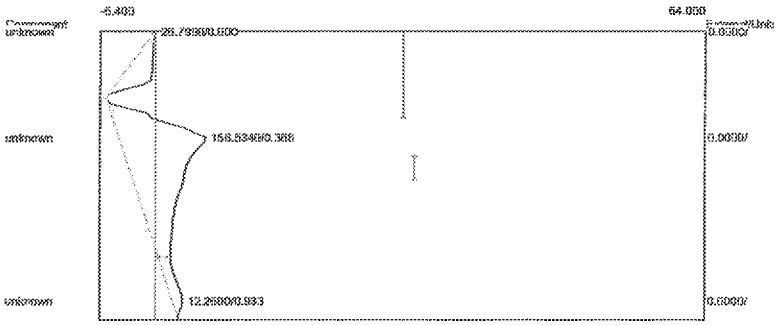
Component	Retention	Area	External Units
unknown	0.000	0.0000	0.0000
unknown	0.383	0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:24:16  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B10.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:24:16  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B10.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

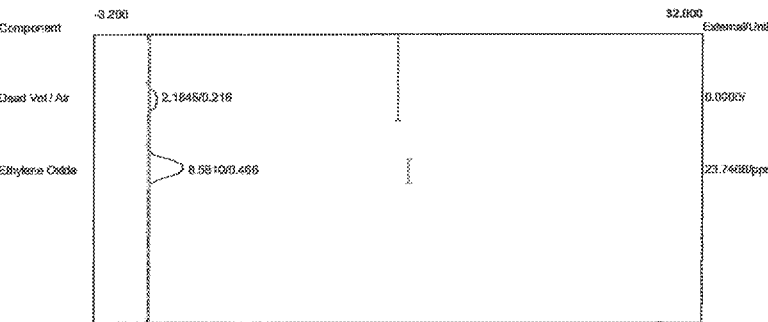


Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.1370	0.0000
Ethylene Oxide	0.450	8.6775	24.0078 ppm
		10.8145	24.0078



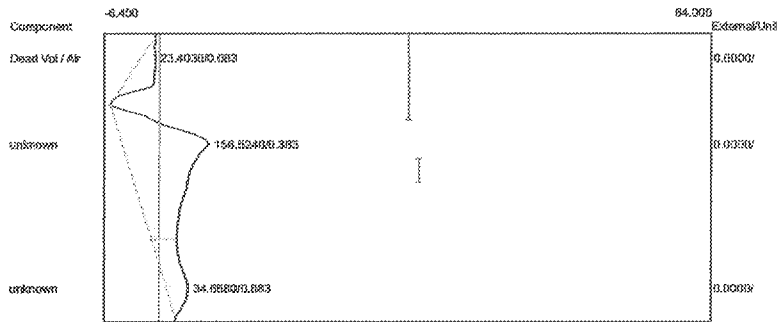
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:25:27  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B11.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



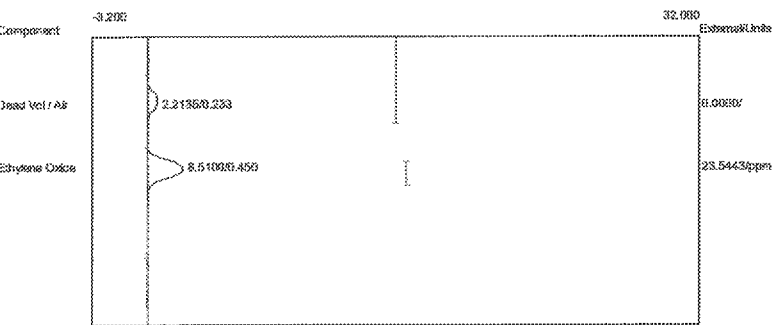
Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.1845	0.0000
Ethylene Oxide	0.466	8.5810	23.7408 ppm
		10.7655	23.7408

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:25:27  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B11.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



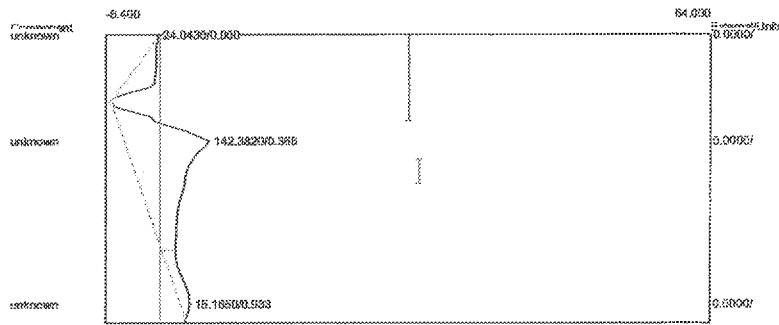
Component	Retention	Area	External Units
Dead Vol / Air	0.083	23.4030	0.0000
		23.4030	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:26:36  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B12.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.2135	0.0000	
Ethylene Oxide	0.450	8.5100	23.5443 ppm	
		10.7235	23.5443	

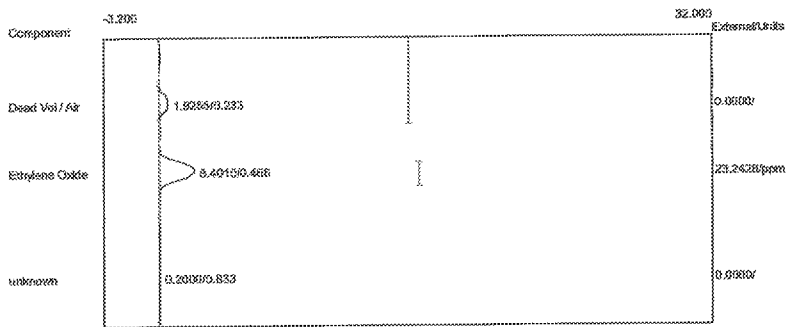
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:26:36  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B12.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



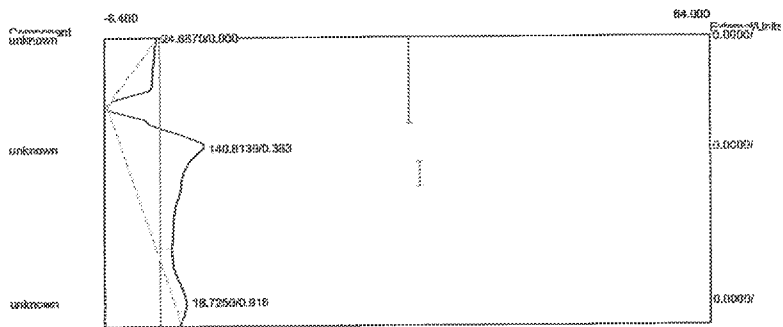
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:27:45  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-1B13.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#1BV  
Analysis date: 09/21/2018 09:27:45  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-1B13.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.233	1.9255	0.0000	
Ethylene Oxide	0.466	8.4010	23.2428	ppm
		10.3265	23.2428	

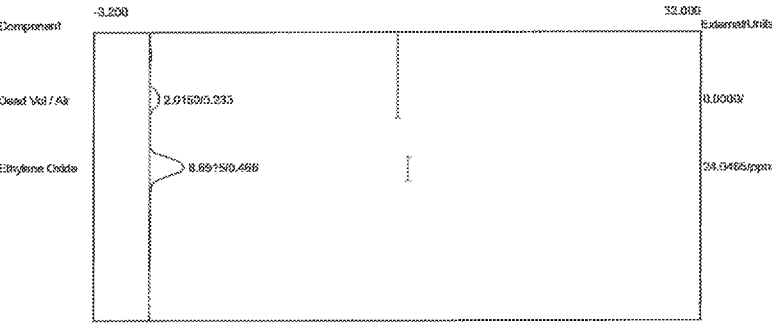


Component	Retention	Area	External	Units
		0.0000	0.0000	

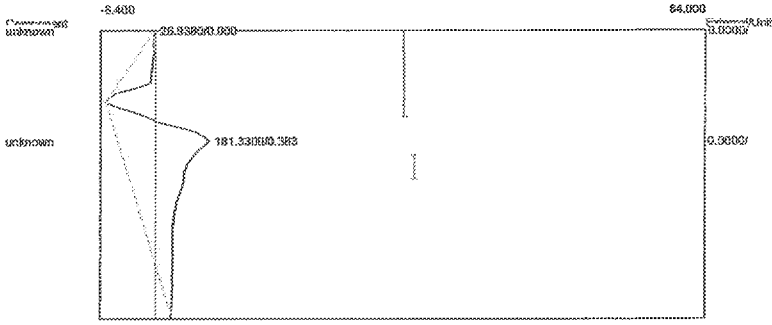
**TEST RUN 2**

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:31:03  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B01.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:31:03  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B01.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



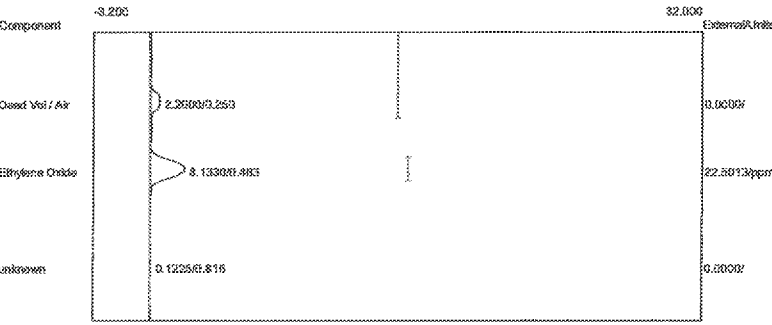
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.0150	0.0000
Ethylene Oxide	0.466	8.6915	24.0465 ppm
		10.7065	24.0465



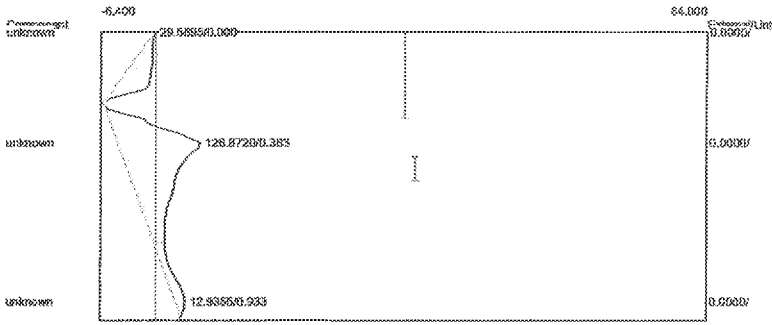
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:32:13  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B02.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:32:13  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B02.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

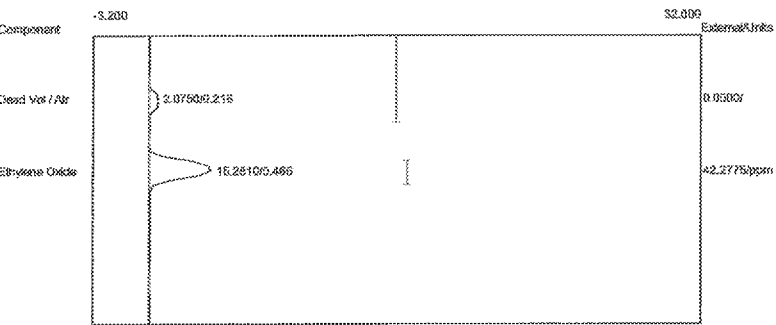


Component	Retention	Area	External	Units
Dead Vol / Air	0.250	2.2000	0.0000	
Ethylene Oxide	0.483	8.1330	22.5013	ppm
		10.3330	22.5013	



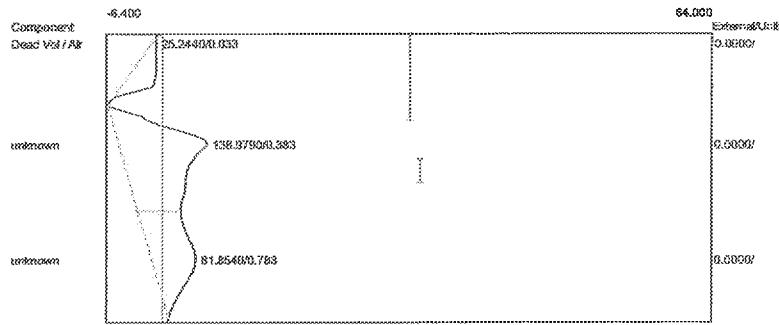
Component	Retention	Area	External	Units
unknown	29.5850	0.0000	0.0000	
Ethylene Oxide	128.8720	0.385	0.0000	
unknown	12.9385	0.933	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:33:30  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carboxpack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B03.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.0750	0.0000
Ethylene Oxide	0.466	15.2810	42.2775 ppm
		17.3560	42.2775

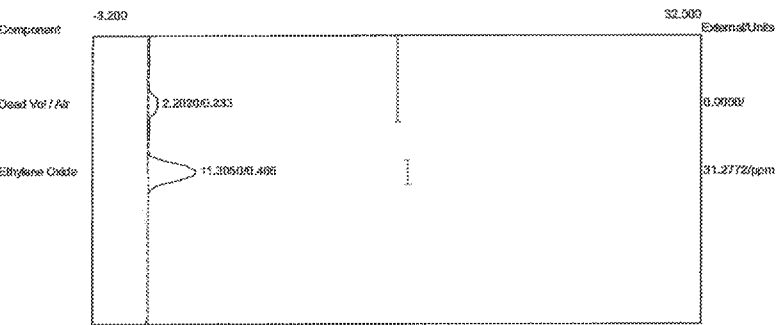
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:33:30  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carboxpack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B03.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



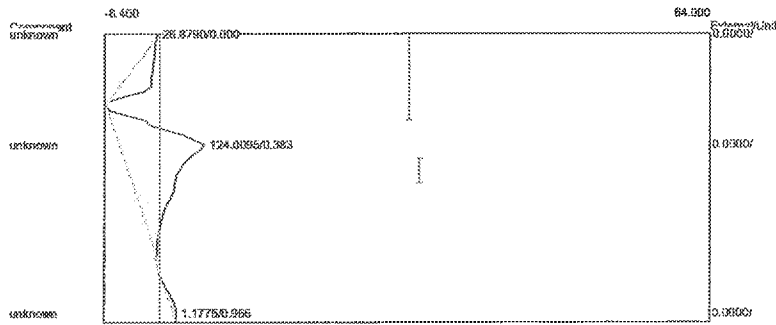
Component	Retention	Area	External Units
Dead Vol / Air	0.033	25.2440	0.0000
		25.2440	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:34:38  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B04.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:34:38  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B04.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



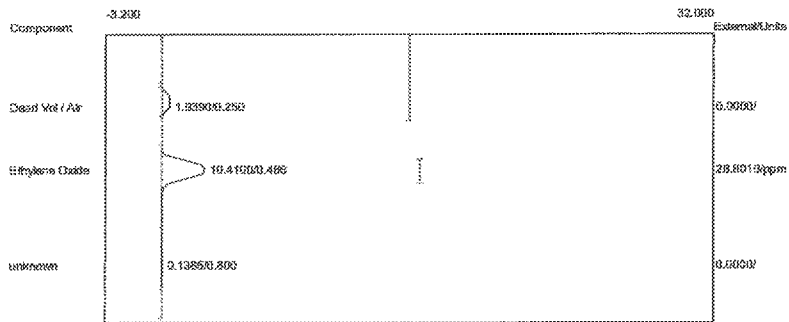
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.2020	0.0000
Ethylene Oxide	0.466	11.3050	31.2772 ppm
		13.5070	31.2772



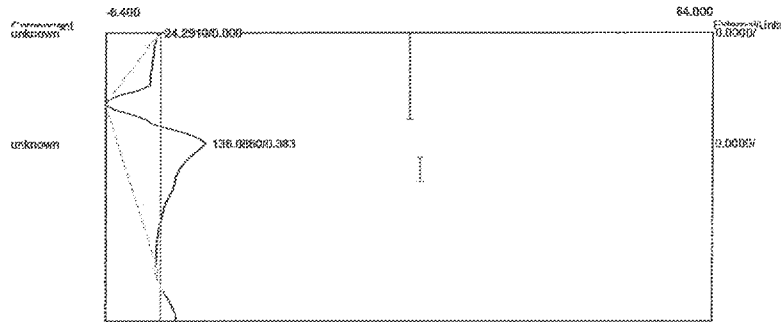
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:35:43  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B05.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:35:43  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B05.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



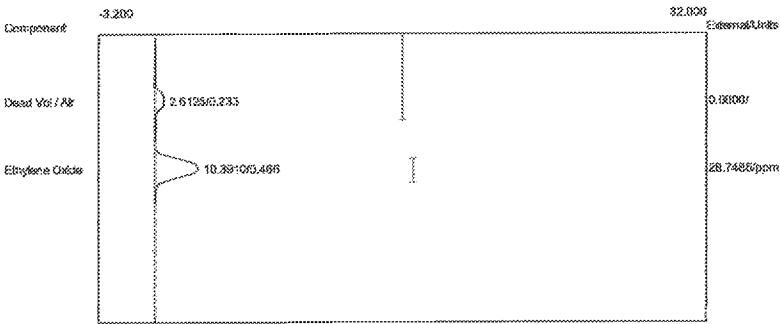
Component	Retention	Area	External	Units
Dead Vol / Air	0.250	1.9390	0.0000	
Ethylene Oxide	0.466	10.4100	28.8010	ppm
		12.3490	28.8010	



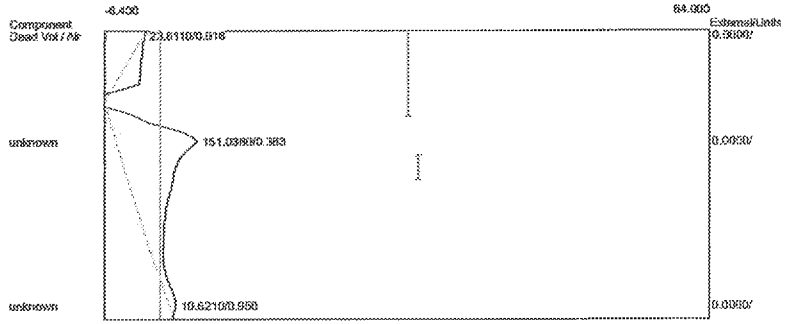
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:36:51  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B06.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:36:51  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B06.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



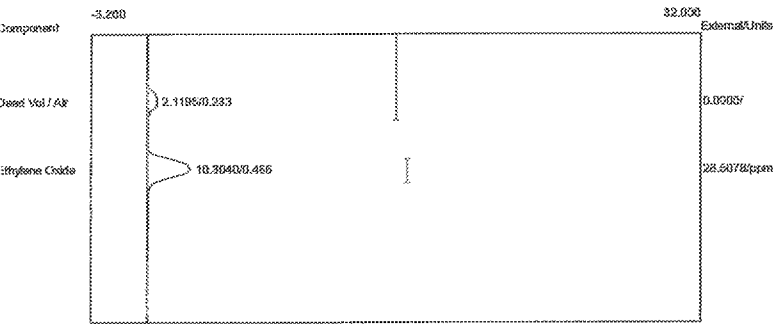
Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.6125	0.0000	
Ethylene Oxide	0.466	10.3910	28.7485	ppm
		13.0035	28.7485	



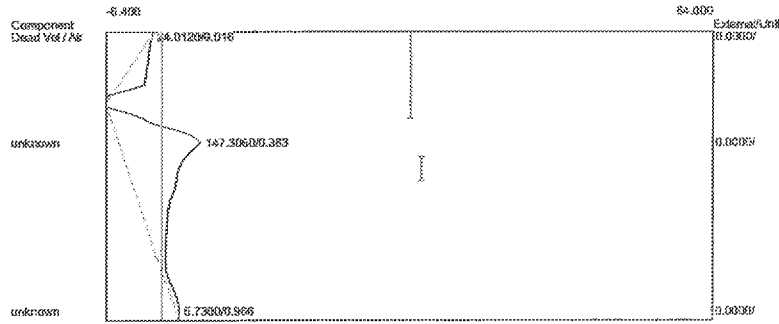
Component	Retention	Area	External	Units
Dead Vol / Air	0.016	23.6110	0.0000	
		23.6110	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:37:58  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B07.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:37:58  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B07.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



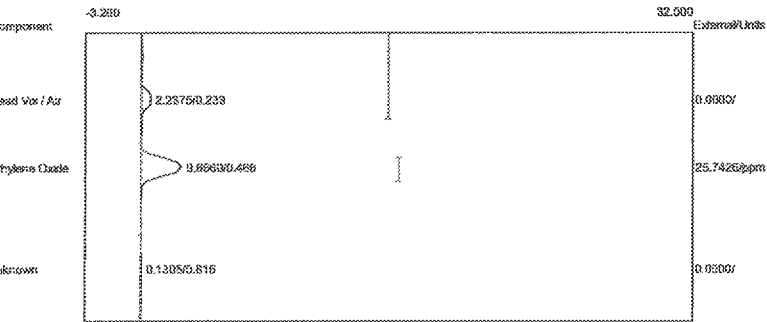
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1195	0.0000
Ethylene Oxide	0.466	10.3040	28.5078 ppm
		12.4235	28.5078



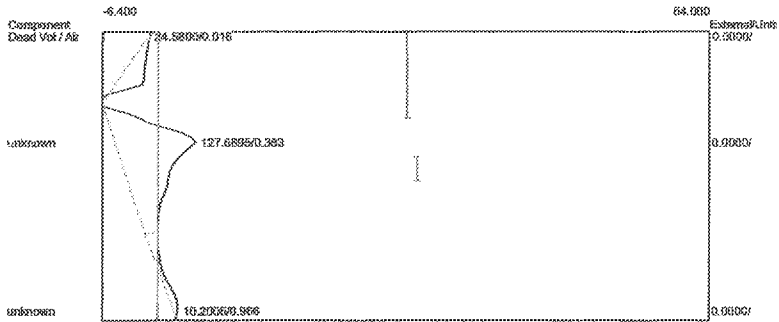
Component	Retention	Area	External Units
Dead Vol / Air	0.016	24.0120	0.0000
		24.0120	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:39:06  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B08.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:39:06  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B08.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



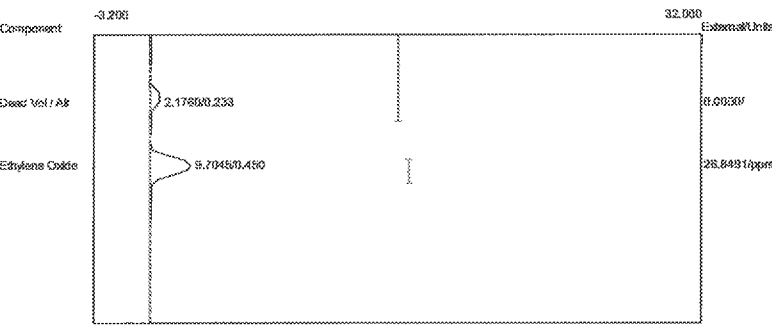
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.2375	0.0000
Ethylene Oxide	0.466	9.6660	26.7426 ppm
		11.9035	26.7426



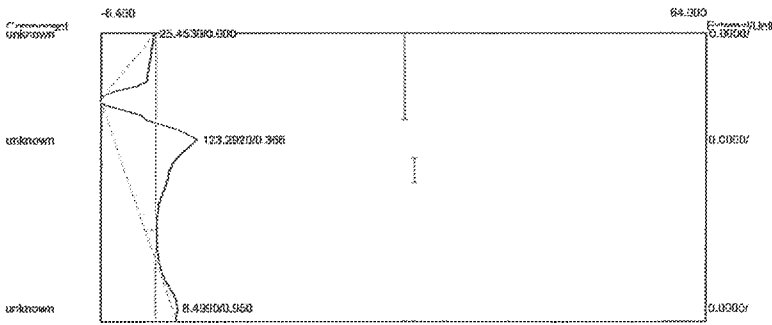
Component	Retention	Area	External Units
Dead Vol / Air	0.016	24.5800	0.0000
		24.5800	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:40:13  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B09.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:40:13  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B09.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



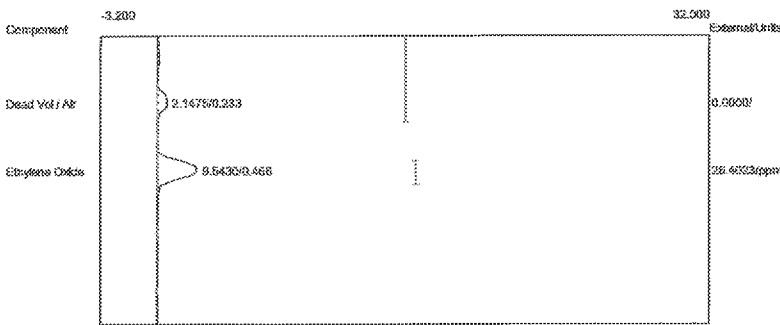
Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.1760	0.0000	
Ethylene Oxide	0.450	9.7045	26.8491 ppm	
		11.8805	26.8491	



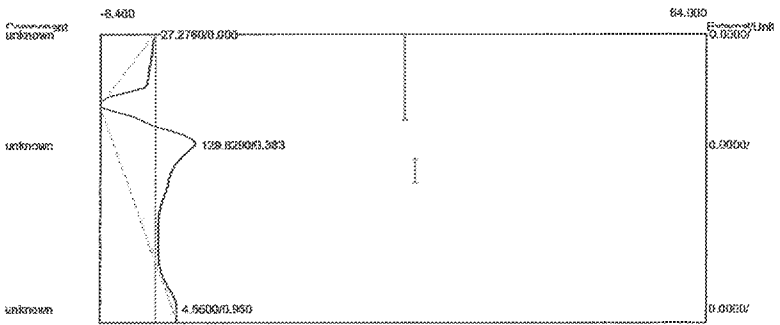
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:41:21  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B10.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:41:21  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B10.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

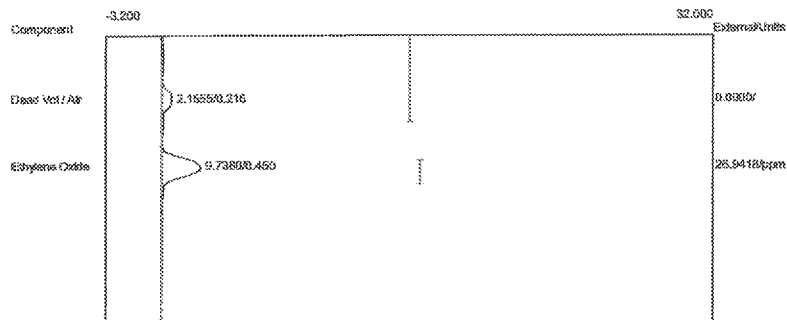


Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1475	0.0000
Ethylene Oxide	0.466	9.5430	26.4023 ppm
		11.6905	26.4023



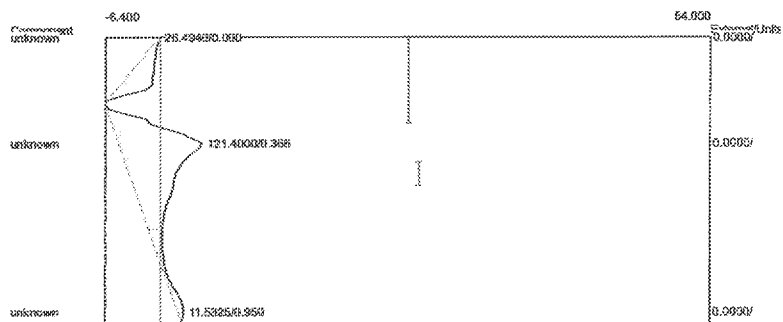
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:42:29  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B11.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.1555	0.0000
Ethylene Oxide	0.450	9.7380	26.9418 ppm
		11.8935	26.9418

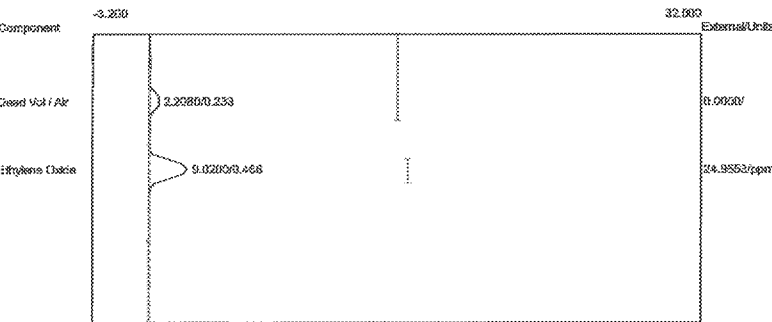
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:42:29  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B11.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



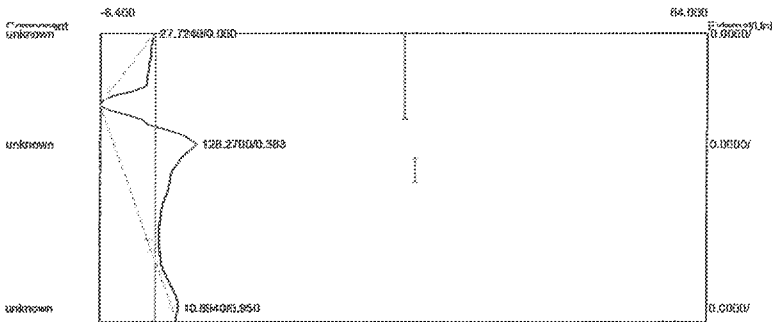
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#28V  
Analysis date: 09/21/2018 09:43:37  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B12.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#28V  
Analysis date: 09/21/2018 09:43:37  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B12.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



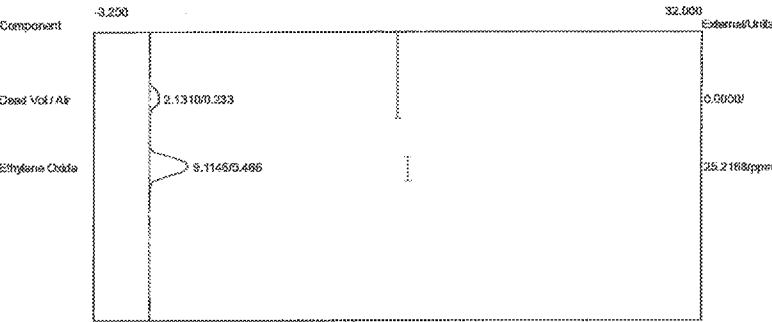
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.2080	0.0000
Ethylene Oxide	0.466	9.0200	24.9553 ppm
		11.2280	24.9553



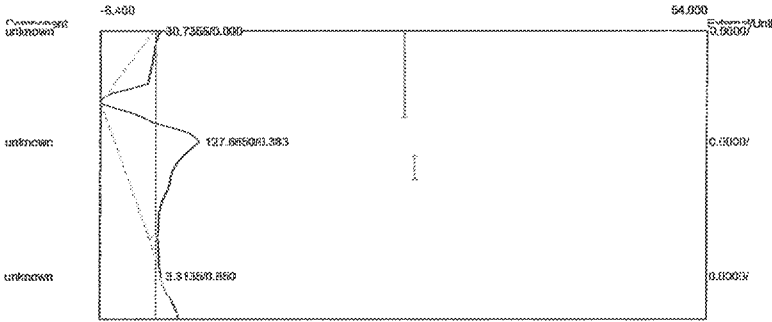
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:44:42  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-2B13.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#2BV  
Analysis date: 09/21/2018 09:44:42  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-2B13.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



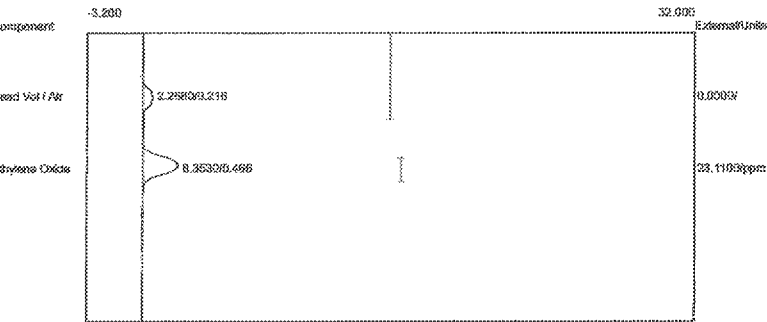
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1310	0.0000
Ethylene Oxide	0.466	9.1145	25.2168 ppm
		11.2455	25.2168



Component	Retention	Area	External Units
		0.0000	0.0000

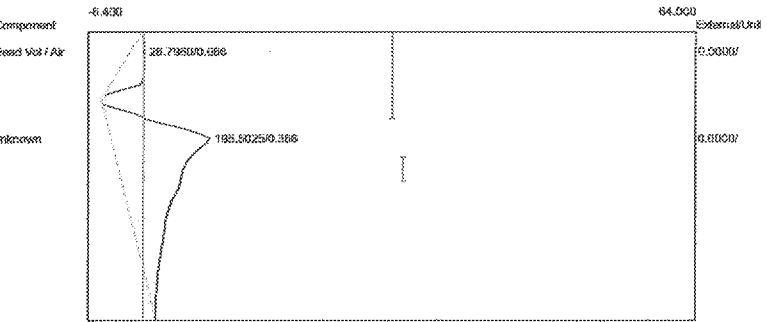
**TEST RUN 3**

Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 09:53:04  
 Method: Direct Injection  
 Description: CHANNEL 1 - FID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto1-100.cpt  
 Data file: 1Ster1WB2018-3B01.CHR (c:\peak359)  
 Sample: AAT Inlet  
 Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.2680	0.0000
Ethylene Oxide	0.466	8.3530	23.1100 ppm
		10.6210	23.1100

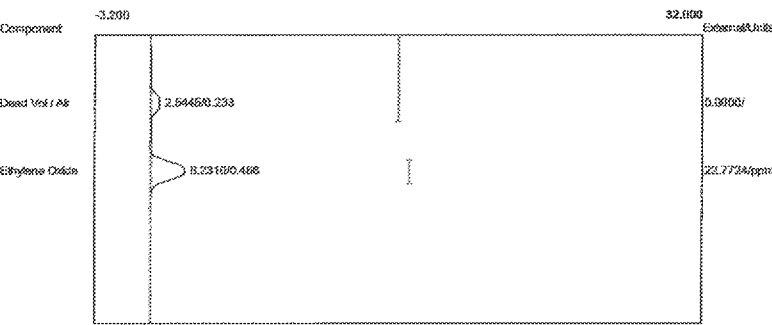
Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 09:53:04  
 Method: Direct Injection  
 Description: CHANNEL 2 - PID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto2-100.cpt  
 Data file: 2Ster1WB2018-3B01.CHR (c:\peak359)  
 Sample: AAT Outlet  
 Operator: D. Kremer



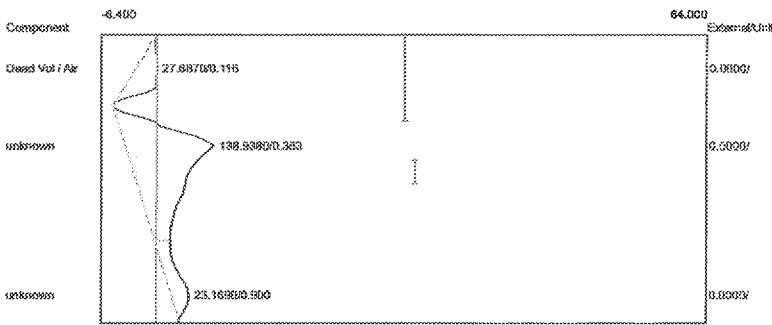
Component	Retention	Area	External Units
Dead Vol / Air	0.066	26.7960	0.0000
		26.7960	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:54:14  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B02.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:54:14  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B02.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



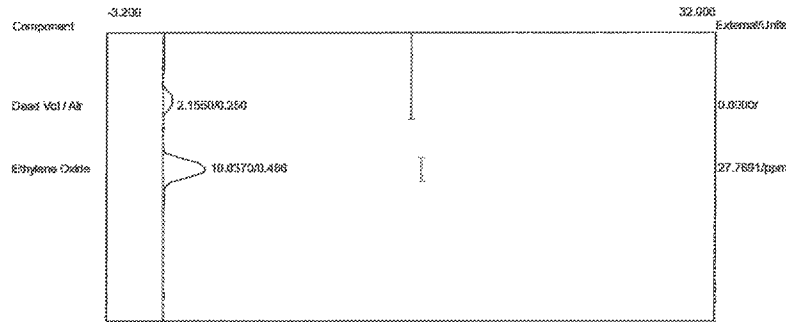
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.5445	0.0000
Ethylene Oxide	0.466	8.2310	22.7724 ppm
		10.7755	22.7724



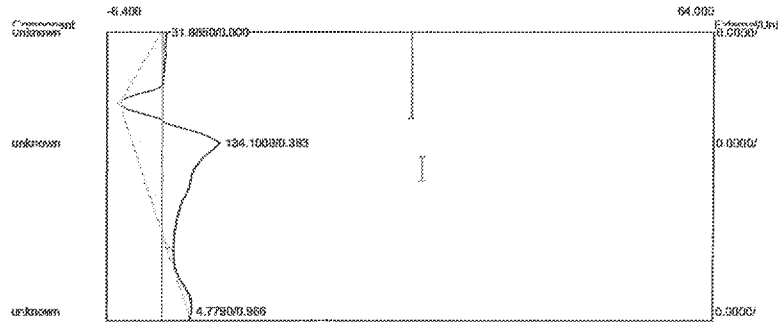
Component	Retention	Area	External Units
Dead Vol / Air	0.116	27.6870	0.0000
unknown		27.6870	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:55:22  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B03.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:55:22  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B03.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

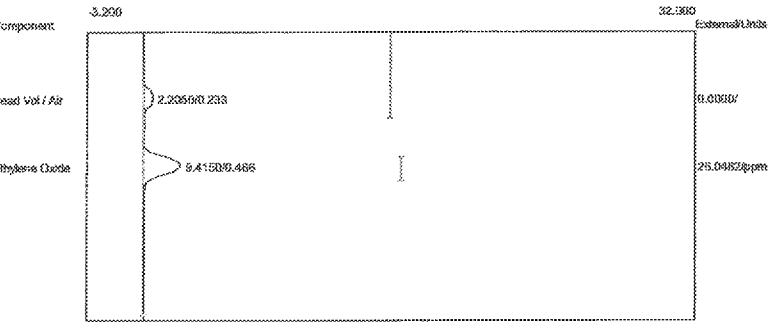


Component	Retention	Area	External	Units
Dead Vol / Air	0.250	2.1550	0.0000	
Ethylene Oxide	0.466	10.0370	27.7691	ppm
		12.1920	27.7691	



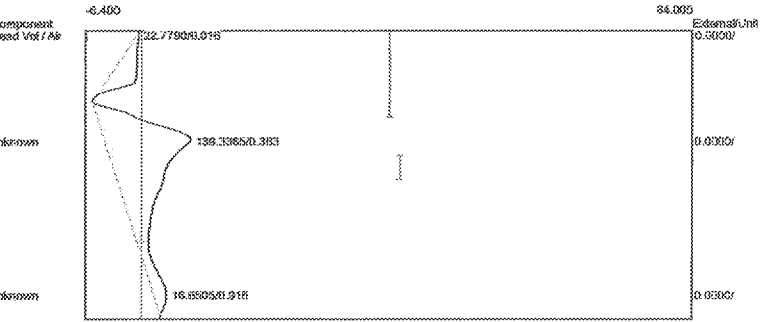
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 09:56:32  
 Method: Direct Injection  
 Description: CHANNEL 1 - FID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto1-100.cpt  
 Data file: 1Ster1WB2018-3B04.CHR (c:\peak359)  
 Sample: AAT Inlet  
 Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.2050	0.0000
Ethylene Oxide	0.466	9.4150	26.0482 ppm
		11.6200	26.0482

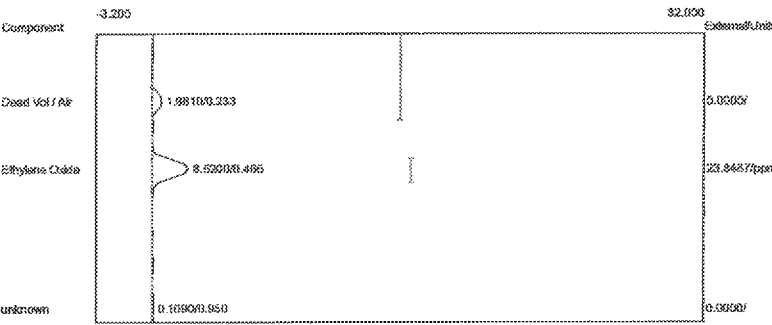
Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 09:56:32  
 Method: Direct Injection  
 Description: CHANNEL 2 - PID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto2-100.cpt  
 Data file: 2Ster1WB2018-3B04.CHR (c:\peak359)  
 Sample: AAT Outlet  
 Operator: D. Kremer



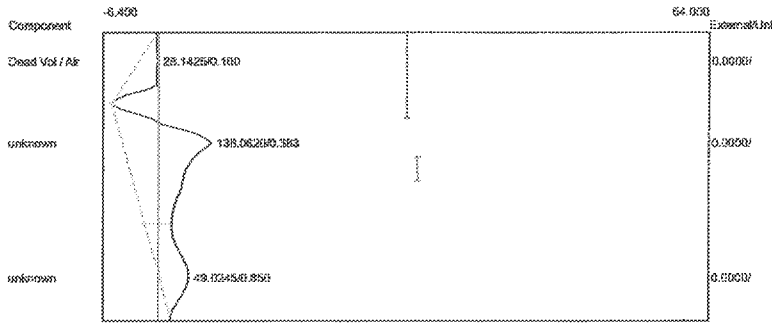
Component	Retention	Area	External Units
Dead Vol / Air	0.016	22.7790	0.0000
		22.7790	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#38V  
Analysis date: 09/21/2018 09:57:46  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B05.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#38V  
Analysis date: 09/21/2018 09:57:46  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B05.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



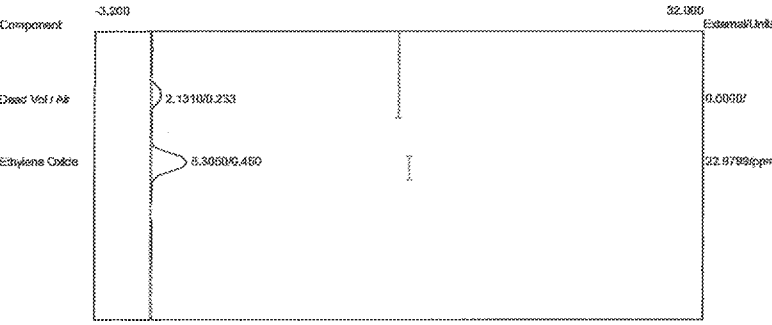
Component	Retention	Area	External Units
Dead Vol / Air	0.233	1.9810	0.0000
Ethylene Oxide	0.466	8.6200	23.8487 ppm
		10.6010	23.8487



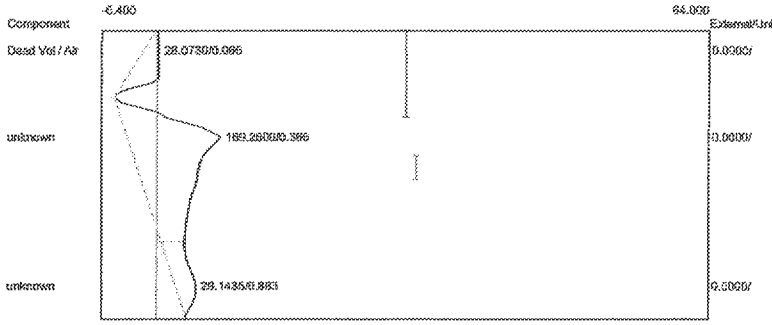
Component	Retention	Area	External Units
Dead Vol / Air	0.100	28.1425	0.0000
		28.1425	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:58:56  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B06.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 09:58:56  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B06.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



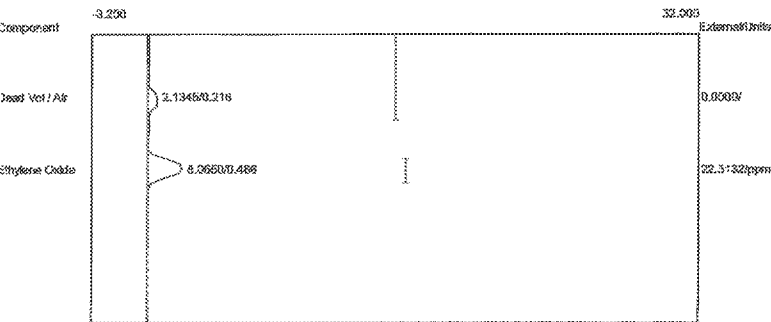
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1310	0.0000
Ethylene Oxide	0.450	8.3060	22.9799 ppm
		10.4370	22.9799



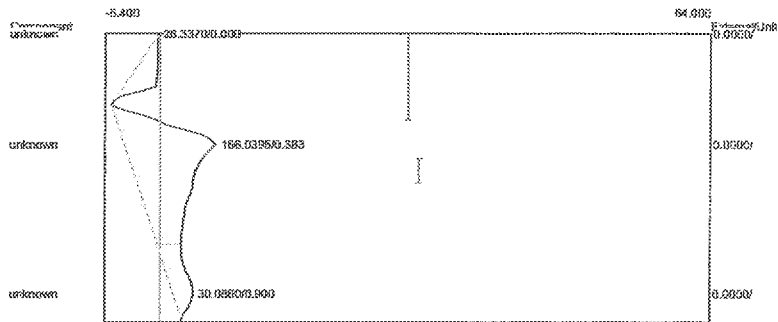
Component	Retention	Area	External Units
Dead Vol / Air	0.066	28.0730	0.0000
unknown		28.0730	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:00:07  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B07.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kramer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:00:07  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B07.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kramer



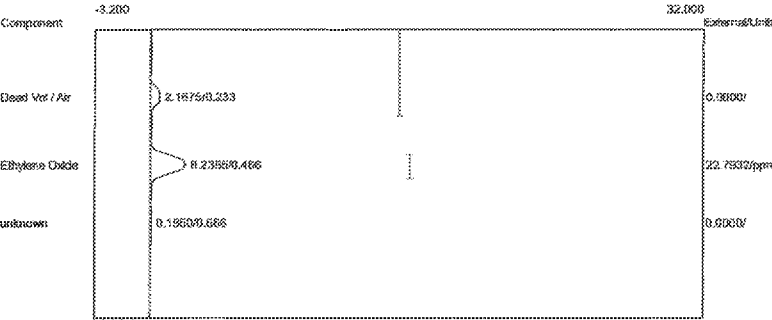
Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.1345	0.0000	
Ethylene Oxide	0.466	8.0650	22.3132	ppm
		10.1995	22.3132	



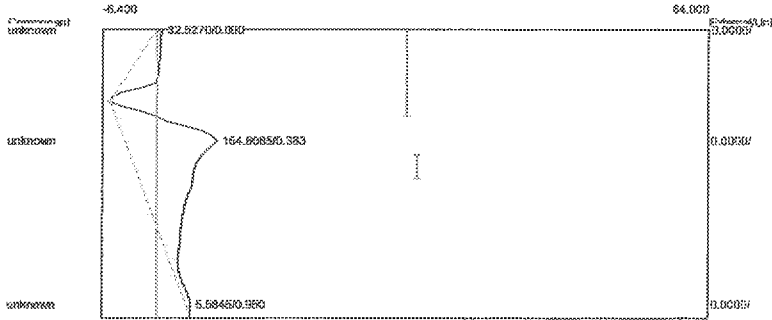
Component	Retention	Area	External	Units
		0.0000	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:01:14  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B08.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:01:14  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B08.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



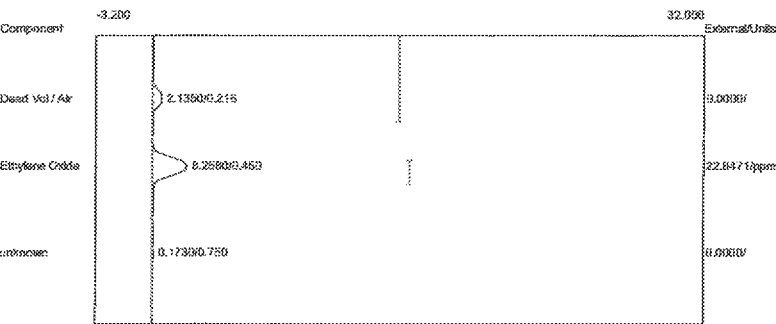
Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1675	0.0000
Ethylene Oxide	0.466	8.2385	22.7932 ppm
		10.4060	22.7932



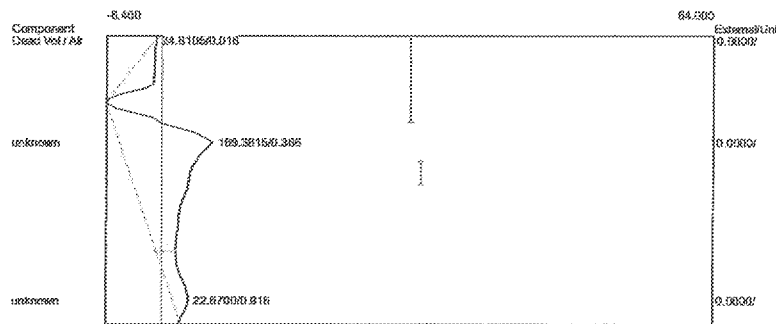
Component	Retention	Area	External Units
		0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:02:23  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B09.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:02:23  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B09.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

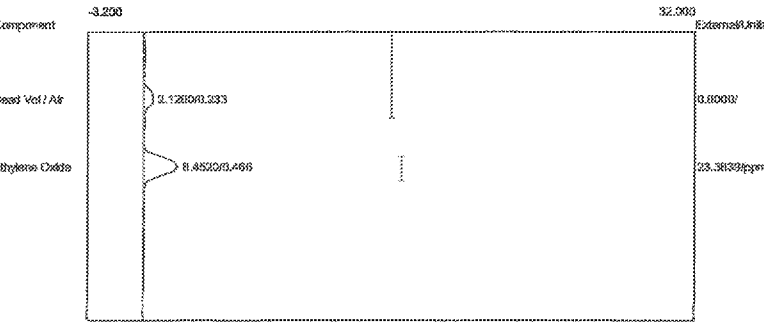


Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.1350	0.0000	
Ethylene Oxide	0.450	8.2580	22.8471	ppm
		10.3930	22.8471	



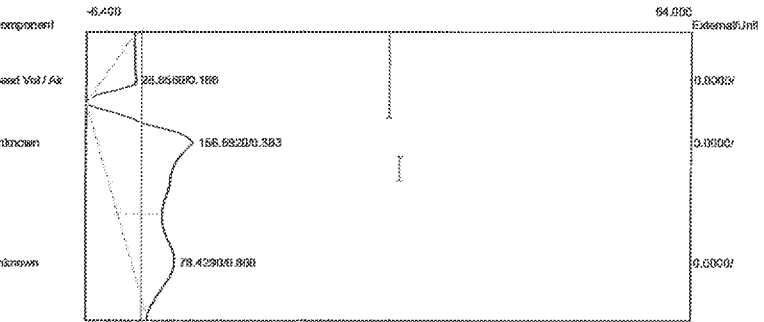
Component	Retention	Area	External	Units
Dead Vol / Air	0.016	24.8105	0.0000	
		24.8105	0.0000	

Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 10:03:40  
 Method: Direct Injection  
 Description: CHANNEL 1 - FID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto1-100.cpt  
 Data file: 1Ster1WB2018-3B10.CHR (c:\peak359)  
 Sample: AAT Inlet  
 Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1200	0.0000
Ethylene Oxide	0.466	8.4520	23.3839 ppm
		10.5720	23.3839

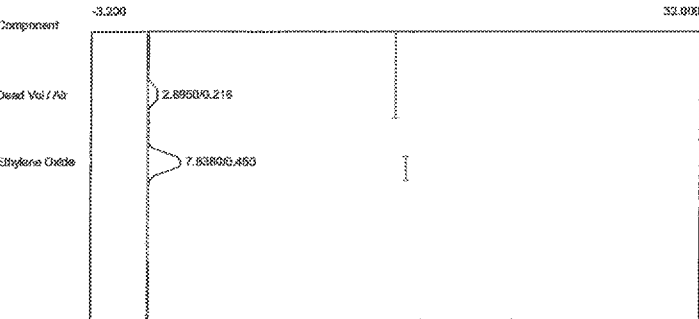
Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Run#3BV  
 Analysis date: 09/21/2018 10:03:40  
 Method: Direct Injection  
 Description: CHANNEL 2 - PID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto2-100.cpt  
 Data file: 2Ster1WB2018-3B10.CHR (c:\peak359)  
 Sample: AAT Outlet  
 Operator: D. Kremer



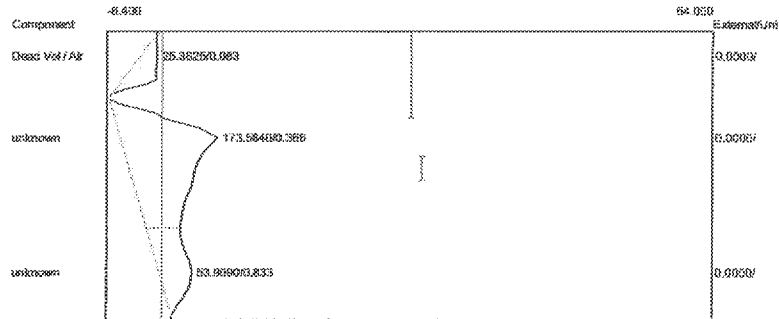
Component	Retention	Area	External Units
Dead Vol / Air	0.166	28.6560	0.0000
		28.6560	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:04:53  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbowack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B11.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:04:53  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbowack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B11.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



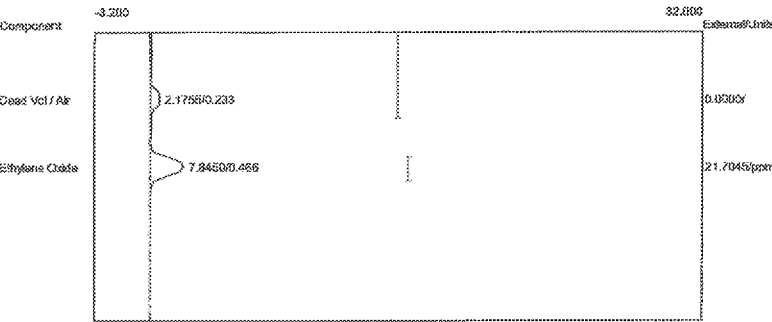
Component	Retention	Area	External Units
Dead Vol / Air	0.216	2.8950	0.0000
Ethylene Oxide	0.450	7.8380	21.6851 ppm
		10.7330	21.6851



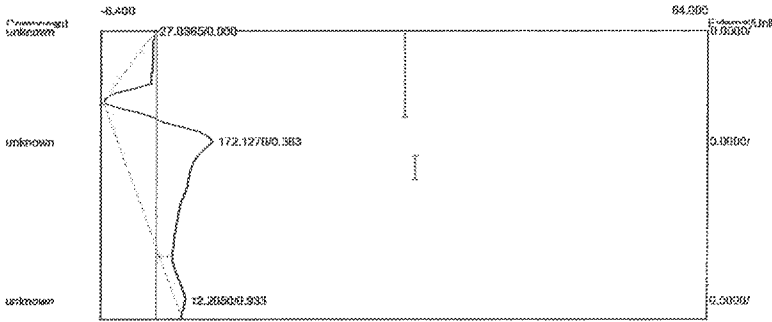
Component	Retention	Area	External Units
Dead Vol / Air	0.083	25.3625	0.0000
		25.3625	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:06:02  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-3B12.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Run#3BV  
Analysis date: 09/21/2018 10:06:02  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-3B12.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer



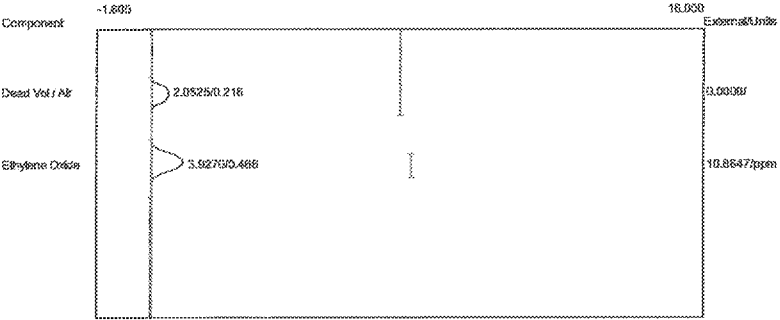
Component	Retention	Area	External	Units
Dead Vol / Air	0.233	2.1755	0.0000	
Ethylene Oxide	0.466	7.8450	21.7045 ppm	
		10.0205	21.7045	



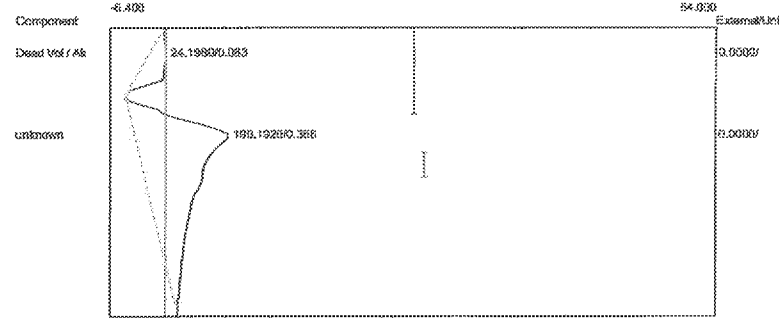
Component	Retention	Area	External	Units
			0.0000	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Aeration  
Analysis date: 09/21/2018 09:09:51  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-A04.CHR (c:\peak359)  
Sample: AAT Inlet  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: Aeration  
Analysis date: 09/21/2018 09:09:51  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-A04.CHR (c:\peak359)  
Sample: AAT Outlet  
Operator: D. Kremer

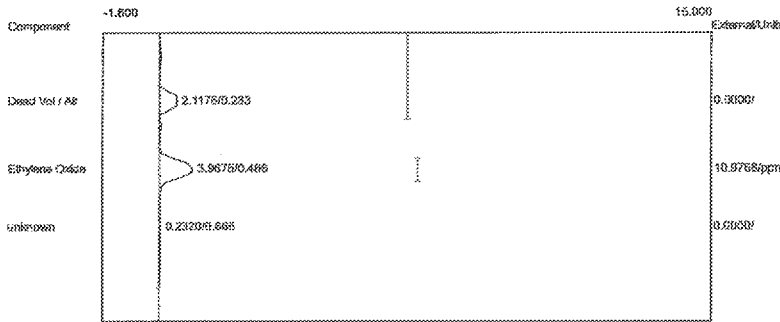


Component	Retention	Area	External	Units
Dead Vol / Air	0.216	2.0525	0.0000	
Ethylene Oxide	0.466	3.9270	10.8647	ppm
		5.9795	10.8647	



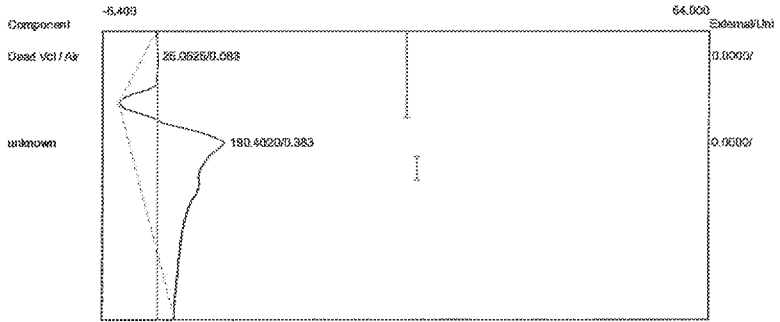
Component	Retention	Area	External	Units
Dead Vol / Air	0.083	24.1980	0.0000	
		24.1980	0.0000	

Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Aeration  
 Analysis date: 09/21/2018 09:07:10  
 Method: Direct Injection  
 Description: CHANNEL 1 - FID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto1-100.cpt  
 Data file: 1Ster1WB2018-A03.CHR (c:\peak359)  
 Sample: AAT Inlet  
 Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.233	2.1175	0.0000
Ethylene Oxide	0.466	3.9675	10.9768 ppm
		6.0850	10.9768

Lab name: ECSi  
 Client: Sterigenics - Willowbrook 1  
 Client ID: Aeration  
 Analysis date: 09/21/2018 09:07:10  
 Method: Direct Injection  
 Description: CHANNEL 2 - PID  
 Column: 1% SP-1000, Carbopack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto2-100.cpt  
 Data file: 2Ster1WB2018-A03.CHR (c:\peak359)  
 Sample: AAT Outlet  
 Operator: D. Kremer




Component	Retention	Area	External Units
Dead Vol / Air	0.083	25.0525	0.0000
		25.0525	0.0000

## APPENDIX F

### Field Data

*ECSi*

ECSI, INC. - VELOCITY TRAVERSE DATA

Client: Stergenics Run #: 1 Date: 5/31/19 Port Sketch: 

Location: Willowbrook - Plant 1 Probe Type: Std. Baro Press: 29.96 28.95

Source: AAT Safe Cell System Inlet Stack I.D.: 36 in. DSCFM: \_\_\_\_\_

Port 1														Port 2													
Inches From Port	Point#	Delta P				Stack Temp (F)	Cyclonic Angle	Point#	Delta P				Stack Temp (F)	Cyclonic Angle													
		Low	High	Average	Sq Root				Low	High	Average	Sq Root															
0.7	1	0.25	0.25	#DIV/0!	#DIV/0!	101.2	1.5	1	0.21	0.21	#DIV/0!	#DIV/0!	103.3	5.0													
2.4	2	0.15	0.15	#DIV/0!	#DIV/0!	101.2	5.6	2	0.22	0.22	#DIV/0!	#DIV/0!	103.3	4.6													
4.2	3	0.18	0.18	#DIV/0!	#DIV/0!	<del>101.7</del>	2.0	3	0.21	0.21	#DIV/0!	#DIV/0!	103.2	3.6													
6.3	4	0.20	0.20	#DIV/0!	#DIV/0!	102.2	1.8	4	0.25	0.25	#DIV/0!	#DIV/0!	103.1	5.1													
9.0	5	0.21	0.21	#DIV/0!	#DIV/0!	102.4	1.6	5	0.23	0.23	#DIV/0!	#DIV/0!	102.9	3.0													
12.9	6	0.25	0.25	#DIV/0!	#DIV/0!	102.5	0.5	6	0.25	0.25	#DIV/0!	#DIV/0!	102.8	2.6													
23.1	7	0.21	0.21	#DIV/0!	#DIV/0!	103.5	1.0	7	0.16	0.16	#DIV/0!	#DIV/0!	102.6	8.8													
27.0	8	0.23	0.23	#DIV/0!	#DIV/0!	104	1.4	8	0.19	0.19	#DIV/0!	#DIV/0!	102.6	6.3													
29.7	9	0.17	0.25	#DIV/0!	#DIV/0!	104.3	8.5	9	0.24	0.24	#DIV/0!	#DIV/0!	102.5	4.1													
31.8	10	0.17	0.19	#DIV/0!	#DIV/0!	104.4	0.5	10	0.22	0.22	#DIV/0!	#DIV/0!	102.5	2.2													
33.6	11	0.26	0.26	#DIV/0!	#DIV/0!	104.6	1.5	11	0.26	0.26	#DIV/0!	#DIV/0!	102.4	2.8													
35.3	12	0.19	0.19	#DIV/0!	#DIV/0!	105	1.8	12	0.22	0.22	#DIV/0!	#DIV/0!	102.5	2.1													
	13							13																			
	14							14																			
	15							15																			
	16							16																			
	17							17																			
	18							18																			
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	23							23																			
	24							24																			
* Stack static pressure measured at -0.25" H <sub>2</sub> O														Average Values: #DIV/0! #DIV/0! #DIV/0! #DIV/0!													

\* Stack static pressure measured at -0.25 ftAO

Average Values:

#DIV/0!

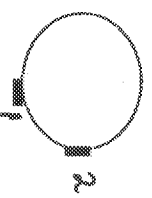
#DIV/0!

#DIV/0!

#DIV/0!

\* Pitot tube P-4-2 was last checked @ 11AO, max scale on the manometer

ECSI, INC. - VELOCITY TRAVERSE DATA

Client: Sterigenics Run #: 1 Date: 6/21/14 Port Sketch:  
Location: Willowbrook - Plant 1 Probe Type: Std. Baro Press: 29.95 25.00  
Source: AAT Safe Cell System Inlet Stack I.D.: 36 in. DSCFM: 

Port 1										Port 2									
Inches From Port	Point#	Delta P				Stack Temp (F)	Cyclonic Angle	Point#		Delta P				Stack Temp (F)	Cyclonic Angle				
		Low	High	Average	Sq Root					Low	High	Average	Sq Root			#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
0.7	1	0.25	0.25	#DIV/0!	#DIV/0!	101.2	1.5	1		0.21	0.21	#DIV/0!	#DIV/0!	103.3	5.0				
2.4	2	0.15	0.15	#DIV/0!	#DIV/0!	101.2	5.6	2		0.22	0.22	#DIV/0!	#DIV/0!	103.3	4.6				
4.2	3	0.18	0.18	#DIV/0!	#DIV/0!	101.7	2.0	3		0.21	0.21	#DIV/0!	#DIV/0!	103.2	3.6				
6.3	4	0.20	0.20	#DIV/0!	#DIV/0!	102.2	1.8	4		0.25	0.25	#DIV/0!	#DIV/0!	103.1	5.1				
9.0	5	0.21	0.21	#DIV/0!	#DIV/0!	102.4	1.0	5		0.23	0.23	#DIV/0!	#DIV/0!	102.9	3.0				
12.9	6	0.25	0.25	#DIV/0!	#DIV/0!	102.5	0.5	6		0.35	0.25	#DIV/0!	#DIV/0!	102.8	2.6				
23.1	7	0.21	0.21	#DIV/0!	#DIV/0!	103.5	1.0	7		0.16	0.16	#DIV/0!	#DIV/0!	102.6	8.8				
27.0	8	0.23	0.23	#DIV/0!	#DIV/0!	104	1.4	8		0.19	0.19	#DIV/0!	#DIV/0!	102.6	6.3				
29.7	9	0.17	0.25	#DIV/0!	#DIV/0!	104.3	8.5	9		0.24	0.24	#DIV/0!	#DIV/0!	102.5	4.1				
31.8	10	0.19	0.19	#DIV/0!	#DIV/0!	104.4	0.5	10		0.22	0.22	#DIV/0!	#DIV/0!	102.5	2.2				
33.6	11	0.26	0.26	#DIV/0!	#DIV/0!	104.6	1.3	11		0.26	0.26	#DIV/0!	#DIV/0!	102.4	2.8				
35.3	12	0.19	0.19	#DIV/0!	#DIV/0!	105	1.8	12		0.22	0.22	#DIV/0!	#DIV/0!	102.5	2.1				
	13							13											
	14							14											
	15							15											
	16							16											
	17							17											
	18							18											
	19							19											
	20							20											
	21							21											
	22							22											
	23							23											
	24							24											

Average Values: #DIV/0! #DIV/0! #DIV/0! #DIV/0!

\* Pitot tube P-4-2 was not checked @ 120, max scale on the manometer

ECSI, INC. - VELOCITY TRAVERSE DATA

Client: Sterigenics  
Location: Willowbrook - Plant 1  
Source: AAT Safe Cell System Outlet  
Run #: 1  
Date: 9/21/18  
Probe Type: Std  
Bero Press: 29.56  
Stack I.D.: 20x30  
DSCFM: 2505  
Port Sketch:

0000  
1234

Stack I.D.: 20x30  
= 4.17 ft<sup>2</sup>

Port 1 & 2										Port 3 & 4									
Inches From Port	Point#	Delta P			Stack Temp (F)	Cyclonic Angle	Point#	Delta P			Stack Temp (F)	Cyclonic Angle							
		Low	High	Average				Sq Root	Low	High			Average	Sq Root					
2.5	1	0.55	0.55	#DIV/0!	97.8	3.8	1	0.53	0.53	#DIV/0!	103.5	4.8							
5.0	2	0.70	0.70	#DIV/0!	107.7	4.8	2	0.52	0.52	#DIV/0!	105.105	4.8							
7.5	3	0.75	0.75	#DIV/0!	109.1	3.0	3	0.42	0.42	#DIV/0!	107.107	2.8							
10.0	4	0.80	0.80	#DIV/0!	109.4	0.8	4	0.42	0.42	#DIV/0!	108.1	2.8							
12.5	5	0.85	0.85	#DIV/0!	109.5	1.8	5	0.50	0.50	#DIV/0!	107.1	2.8							
15.0	6	1.09	1.09	#DIV/0!	109.5	1.8	6	0.70	0.70	#DIV/0!	108.9	2.2							
17.5	7	1.3	1.3	#DIV/0!	107.6	0.5	7	0.81	0.91	#DIV/0!	109.1	2.6							
2.5	1	0.35	0.35	#DIV/0!	101.5	1.8	1	0.45	0.45	#DIV/0!	104.5	1.8							
5.0	2	0.38	0.38	#DIV/0!	104.8	3.0	2	0.52	0.52	#DIV/0!	105	2.0							
7.5	3	0.45	0.45	#DIV/0!	107.9	2.0	3	0.40	0.40	#DIV/0!	109	0.5							
10.0	4	0.38	0.38	#DIV/0!	108.6	1.2	4	0.40	0.40	#DIV/0!	109.1	3.6							
12.5	5	0.46	0.46	#DIV/0!	109.0	3.2	5	0.40	0.40	#DIV/0!	109.0	3.5							
15.0	6	0.60	0.60	#DIV/0!	109.1	4.5	6	0.80	0.80	#DIV/0!	108	5.2							
17.5	7	0.90	0.90	#DIV/0!	109.1	5.2	7	0.85	0.85	#DIV/0!	107.1	1.8							
*stack static pressure measured at 0.35" H2O																			
Average Values: #DIV/0! #DIV/0! #DIV/0! #DIV/0!																			

\* Stack static pressure measured at 0.25" H<sub>2</sub>O

Average Values: #DIV/0! #DIV/0! #DIV/0! #DIV/0!

\* Pitot tube P-42 was leak checked @ 2" H<sub>2</sub>O, max scale on the manometer



WB1 Backvent		Run#1	9/21/18
Inj	$\Delta P$ In/out	Temp In/out	
1	.34/.62	104/104	
2	.34/.62	104/104	
3	.32/.62	104/104	
4	.32/.60	104/104	
5	.32/.60	104/104	
6	.34/.60	104/104	
7	.34/.60	103/103	
8	.32/.62	104/104	
9	.32/.60	103/103	
10	.32/.60	104/104	
11	.32/.60	104/104	
12	.32/.61	104/104	
13	.32/.61	104/104	
14			
15			

WB 1 Backvent

Run #2

9/21/18

Inj	$\Delta P$ In/out	Temp In/out
1	.34/.62	104/104
2	.34/.62	104/104
3	.32/.62	105/105
4	.34/.62	104/104
5	.32/.62	104/104
6	.34/.62	104/104
7	.34/.62	104/104
8	.34/.62	104/104
9	.32/.62	104/104
10	.32/.62	104/104
11	.32/.62	104/104
12	.32/.63	104/104
13	.32/.63	104/104
14		
15		

WB1 Backvent Run#3 9/21/18

Inj	$\Delta P$ In/out	Temp In/out
1	.32/.63	105/105
2	.34/.63	105/105
3	.32/.63	105/105
4	.32/.63	105/105
5	.32/.64	105/105
6	.32/.64	105/105
7	.32/.64	105/105
8	.33/.64	105/105
9	.32/.64	105/105
10	.32/.63	105/105
11	.32/.64	105/105
12	.32/.63	104/104
13		

(0)

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Elev 620ft 41.79 °N, 87.75 °W

# Chicago-Midway, IL ★ 🏠

☀️ 58° CHICAGO-MIDWAY STATION (/HISTORY/DAILY/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10-16?CM\_VEN=LOCALWX\_PWSDASH) | CHANGE ▾

HISTORY (/HISTORY/DAILY/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10-16)

- [TODAY \(/WEATHER/US/IL/CHICAGO/KMDW\)](/WEATHER/US/IL/CHICAGO/KMDW)
- [HOURLY \(/HOURLY/US/IL/CHICAGO/KMDW\)](/HOURLY/US/IL/CHICAGO/KMDW)
- [10-DAY \(/FORECAST/US/IL/CHICAGO/KMDW\)](/FORECAST/US/IL/CHICAGO/KMDW)
- [CALENDAR \(/CALENDAR/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10\)](/CALENDAR/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10)
- [HISTORY \(/HISTORY/DAILY/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10-16\)](/HISTORY/DAILY/US/IL/CHICAGO-MIDWAY/KMDW/DATE/2018-10-16)
- [WUNDERMAP \(/WUNDERMAP?LAT=41.78583145&LON=-87.75222015\)](/WUNDERMAP?LAT=41.78583145&LON=-87.75222015)

Daily

Weekly

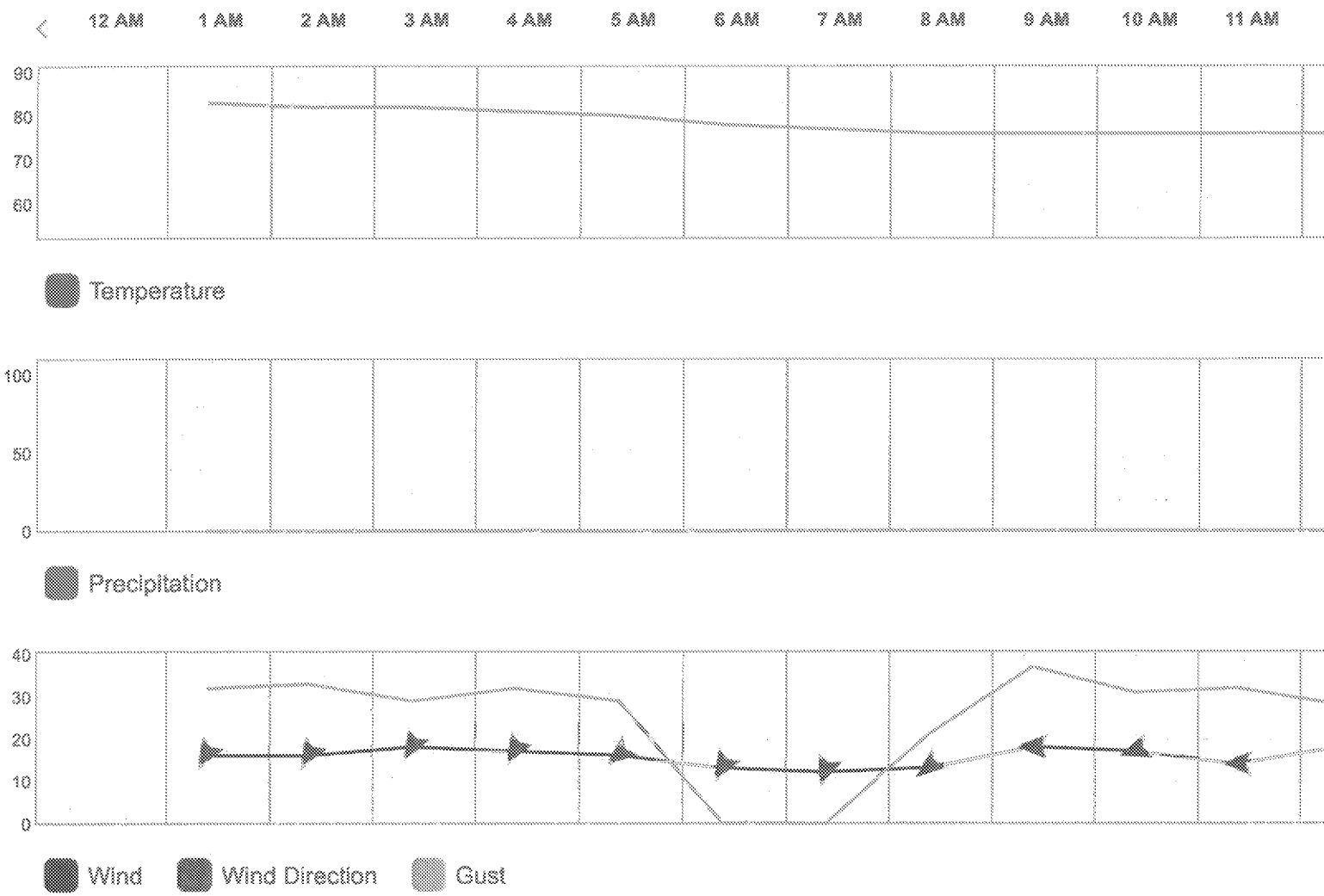
Monthly

September

21

2018

View



# Summary

Temperature (° F)	Actual	Historic Avg.	Record	▲
High Temp	83	73	95	
Low Temp	58	55	40	
Day Average Temp	71	64	-	
Precipitation (Inches)	Actual	Historic Avg.	Record	▲
Precipitation	1e-16	0.11	1.67	
Month to Date	1.48	2.37	-	
Year to Date	27.28	28.92	-	
Degree Days (° F)	Actual	Historic Avg.	Record	▲

Temperature (° F)	Actual	Historic Avg.	Record	▲
Heating Degree Days	0	3	-	
HDD Month to Date	0	35	-	
HDD Since July 1	0	40	-	
Cooling Degree Days	6	3	-	
CDD Month to Date	196	103	-	
CDD Year to Date	1361	1013	-	
Growing Degree Days	20	-	-	
Dew Point (° F)	Actual	Historic Avg.	Record	▲
Dew Point	56	-	-	
High	68	-	-	
Low	41	-	-	
Average	56	-	-	
Wind (MPH)	Actual	Historic Avg.	Record	▲
Max Wind Speed	28	-	-	
Visibility	10	-	-	
Sea Level Pressure (Hg)	Actual	Historic Avg.	Record	▲
Sea Level Pressure	30.25	-	-	
Astronomy	Day Length	Rise	Set	▲
Actual Time	12h 13m	6:38 AM	6:52 PM	
Civil Twilight		6:10 AM	7:19 PM	
Nautical Twilight		5:38 AM	7:52 PM	
Astronomical Twilight		5:04 AM	8:25 PM	
Moon: waxing gibbous		5:29 PM	3:00 AM	

# Daily Observations

Time	Temperature	Dew Point	Humidity	Wind	Wind Speed	Wind Gust	Pressure	Precip.	Precip Accum
12:53 AM	83 ° F	67 ° F	58 %	SSW	16 mph	32 mph	29.1 in	0.0 in	0.0 in
1:53 AM	82 ° F	66 ° F	58 %	SSW	16 mph	33 mph	29.1 in	0.0 in	0.0 in
2:53 AM	82 ° F	65 ° F	56 %	SSW	18 mph	29 mph	29.1 in	0.0 in	0.0 in
3:53 AM	81 ° F	65 ° F	58 %	SSW	17 mph	32 mph	29.1 in	0.0 in	0.0 in
4:53 AM	80 ° F	66 ° F	62 %	SW	16 mph	29 mph	29.1 in	0.0 in	0.0 in
5:53 AM	78 ° F	67 ° F	68 %	SSW	13 mph	0 mph	29.1 in	0.0 in	0.0 in
6:53 AM	77 ° F	68 ° F	74 %	SSW	12 mph	0 mph	29.1 in	0.0 in	0.0 in
7:53 AM	76 ° F	68 ° F	76 %	SW	13 mph	21 mph	29.1 in	0.0 in	0.0 in
8:53 AM	76 ° F	62 ° F	62 %	W	18 mph	37 mph	29.2 in	0.0 in	0.0 in
9:53 AM	76 ° F	63 ° F	64 %	WSW	17 mph	31 mph	29.2 in	0.0 in	0.0 in
10:53 AM	76 ° F	62 ° F	62 %	W	14 mph	32 mph	29.2 in	0.0 in	0.0 in
11:53 AM	76 ° F	59 ° F	56 %	W	18 mph	28 mph	29.3 in	0.0 in	0.0 in
12:53 PM	76 ° F	56 ° F	50 %	W	21 mph	30 mph	29.3 in	0.0 in	0.0 in
1:53 PM	74 ° F	52 ° F	46 %	W	16 mph	29 mph	29.3 in	0.0 in	0.0 in
2:53 PM	75 ° F	51 ° F	43 %	WNW	18 mph	29 mph	29.3 in	0.0 in	0.0 in
3:53 PM	73 ° F	51 ° F	46 %	WNW	16 mph	26 mph	29.3 in	0.0 in	0.0 in
4:53 PM	71 ° F	50 ° F	47 %	NW	15 mph	0 mph	29.4 in	0.0 in	0.0 in
5:53 PM	69 ° F	48 ° F	47 %	NW	15 mph	0 mph	29.4 in	0.0 in	0.0 in
6:53 PM	68 ° F	48 ° F	49 %	NNW	16 mph	0 mph	29.4 in	0.0 in	0.0 in
7:53 PM	64 ° F	45 ° F	50 %	NNW	13 mph	24 mph	29.5 in	0.0 in	0.0 in
8:53 PM	63 ° F	45 ° F	52 %	NNW	15 mph	0 mph	29.5 in	0.0 in	0.0 in
9:53 PM	61 ° F	45 ° F	56 %	N	18 mph	26 mph	29.6 in	0.0 in	0.0 in
10:53 PM	59 ° F	41 ° F	51 %	N	9 mph	0 mph	29.6 in	0.0 in	0.0 in
11:53 PM	58 ° F	41 ° F	53 %	N	13 mph	0 mph	29.6 in	0.0 in	0.0 in

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[Jobs \(https://careers.weather.com/search/?q=&locationsearch=san+francisco?utm\\_source=careersite&utm\\_campaign=wunderground\)](https://careers.weather.com/search/?q=&locationsearch=san+francisco?utm_source=careersite&utm_campaign=wunderground)

[Feedback \(http://help.wunderground.com/\)](http://help.wunderground.com/)

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## APPENDIX G

### Testing Equipment Information

*ECSi*

**CleanAir.**

CleanAir Instrument Rental  
500 W. Wood Street  
Palatine, IL 60067-4975  
800-553-5511  
www.cleanair.com



## Pitot Tube Calibration

Probe Type: S-Type PitotI.D. Number: P-6-4

Project Number: \_\_\_\_\_

### Thermocouple Calibration

Reference Type: Thermometer Reference I.D. No: 1641582Rg Pyrometer I.D. No: 80512890 Units: °F

Point No.	Target Temp.	Reference Temp.	Indicated Temp.	Temp. Difference	% Difference*	Within spec?
1	Ambient					
2	200°F-250°F					

\* Based on Absolute Temperature (Rankine)

%Difference ≤ 1.5

### Geometric Pitot Calibration

Is pitot assembly in good repair? ☒ Yes ☐ No If no, explain:

### "S" Pitot

Dimensions	Dimensions	Specifications	Within Spec?
$\alpha 1 = 1.0$	$\alpha 2 = 0.0$	$\leq 10^\circ$	YES
$\beta 1 = 2.0$	$\beta 2 = 2.0$	$\leq 5^\circ$	YES
$\gamma = 0.0$	$\theta = 0.0$	None	N/A
$A = 0.718$		None	N/A
$Dt = 0.250$		$0.1875" \leq Dt \leq 0.375"$	YES

Calculations	Specifications	Within Spec?
$A/2 = Pa = Pb = 0.359$ inches	None	N/A
$Pa/Dt = Pb/Dt = 1.436$ inches	$1.05 < P/Dt < 1.5$	YES
$z = A \sin \gamma = 0.000$ inches	$\leq 0.125"$	YES
$w = A \sin \theta = 0.000$ inches	$\leq 0.03125"$	YES

Pitot Cp= 0.84 according to 40 CFR 60 section 10.1

### Standard Pitot

Measurement	Specification	Calculation	Within Spec?
Tube O.D.	None		
Static Hole I.D.	within 10% of (0.1" O.D.)		
Tip to Static	$\geq 6^\circ$ O.D.		
Static to Bend	$\geq 8^\circ$ O.D.		

Pitot Cp= \_\_\_\_\_

Calibrated by: Wayne BerryDate: 4/26/2018

**CleanAir**

CleanAir Instrument Rental  
500 W. Wood Street  
Palatine, IL 60067-4975  
800-553-5511  
www.cleanair.com

**Pitot Tube Calibration**Probe Type: S-Type PitotI.D. Number: P-4-2

Project Number: \_\_\_\_\_

**Thermocouple Calibration**

Reference Type: Thermometer Reference I.D. No: 1641582Rg Pyrometer I.D. No: 80512890 Units: °F

Point No.	Target Temp.	Reference Temp.	Indicated Temp.	Temp. Difference	% Difference*	Within spec?
1	Ambient					
2	200°F-250°F					

\* Based on Absolute Temperature (Rankine)

%Difference ≤ 1.5

**Geometric Pitot Calibration**

Is pitot assembly in good repair? ☒ Yes ☐ No If no, explain:**"S" Pitot**

Dimensions	Dimensions	Specifications	Within Spec?
$\alpha 1 = 1.0$	$\alpha 2 = 1.0$	$\leq 10^\circ$	YES
$\beta 1 = -1.0$	$\beta 2 = 2.0$	$\leq 5^\circ$	YES
$y = 3.0$	$\theta = 0.0$	None	N/A
$A = 0.731$		None	N/A
$Dt = 0.250$		$0.1875" \leq Dt \leq 0.375"$	YES

Calculations	Specifications	Within Spec?
$A/2 = Pa = Pb = 0.366$ inches	None	N/A
$Pa/Dt = Pb/Dt = 1.462$ inches	$1.05 < P/Dt < 1.5$	YES
$z = A \sin y = 0.038$ inches	$\leq 0.125"$	YES
$w = A \sin \theta = 0.000$ inches	$\leq 0.03125"$	YES

Pitot Cp= 0.84 according to 40 CFR 60 section 10.1**Standard Pitot**

Measurement	Specification	Calculation	Within Spec?
Tube O.D.	1.000 inches	None	N/A
Static Hole I.D.	within 10% of (0.1" O.D.)		
Tip to Static	$\geq 6" O.D.$		
Static to Bend	$\geq 8" O.D.$		

Pitot Cp=

Calibrated by: Wayne BerryDate: 9/19/2018



FLIR Commercial Systems, Inc.  
9 Townsend West  
Nashua, NH 03063 USA  
Telephone: 603.324.7600  
1-800-GOINFRA

# Certificate of Compliance

We hereby certify that to the best of our knowledge, the instruments listed below meet or exceed the specifications stated in the appropriate instruction manuals. FLIR Commercial Systems, Inc., an ISO 9001:2008 certified company, inspects its incoming shipments using an approved sampling plan with an AQL. All incoming inspections are performed using test equipment that is traceable to National Standards.

CUSTOMER: ECSI, INC.

MODEL #: EA10

SERIAL#: 171103433

Dated this day: 04/03/2018

[REDACTED]

---

**From:** Bill Graham <bgraham@cleanair.com>  
**Sent:** Wednesday, September 19, 2018 9:52 AM  
**To:** [REDACTED]  
**Subject:** RE: Reference P-50998

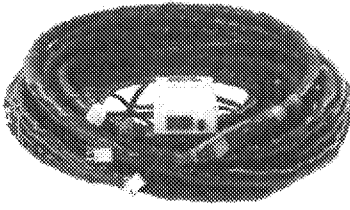
[REDACTED]

here is a cut sheet for heated lines directly from our Express Sales website. Sterigenics currently has one 0723-100 and one 0723-100HD.  
the tubing is the same in both of them.

Regards,

Bill Graham Palatine Rental Team Leader  
CleanAir Instrument Rental  
500 W. Wood St. | Palatine, IL 60067  
O: +1-800-553-5511 | [rental.cleanair.com](http://rental.cleanair.com)

## HEATED SAMPLE LINES



These heated sample lines feature an electrically heat traced and insulated 3/8" Teflon® PTFE (.030 Wall) sample line with a stainless steel over braid and stainless steel tube ends, a 1/4 Teflon® PTFE (.040) calibration line, 3 pin Amphenol power connector, and 2 type K thermocouple plugs. Protected by a durable souff

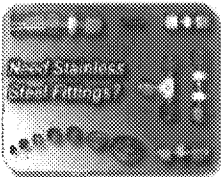
resistant extruded polyurethane jacket. \*Temperature controller sold separately. \*These Heated Sample Lines are not self limiting; a temperature controller is required.

### HEATED SAMPLE LINES ARE USED WITH:

- DEM Cateco - 0035RNT
- CEM 3 Point Probe - 0723123
- Temperature Controllers

## HEAVY DUTY VERSUS STANDARD HEATED SAMPLE LINE

- Note: Heavy Duty Heated Sample Lines HD are manufactured to have a continuous operating temperature of 400°F (~204°C) at an ambient temperature of -20°F.
- Note: Standard Heated Sample Lines are manufactured to have a continuous operating temperature of 400°F (~204°C) at an ambient temperature of 0°F.



### HEATED SAMPLE LINE FEATURES:

- Rated for 400 ° F continuous operation at -20 ° F ambient temperature
- Triple insulation maintains temperature of line with less power consumption. (Heavy Duty)
- Lower resistance heaters requires less power to heat lines.
- A backup type K thermocouple to prevent project delays in the case of primary thermocouple failure in the field.
- Stainless steel over braid and stainless steel tube ends for the sample line to prevent abrasive failure in the field. Optional stainless steel over braid for protection of calibration line from abrasive failure in the field.
- Durable extruded poly-urethane jacket for protection of sample/calibration lines from abrasive failure in the field.
- Inert teflon® PTFE sample and calibration lines will provide more accurate results by eliminating potential bias from other materials. Teflon is also more corrosion resistant than tygon, and can be washed with acetone without degradation.

Part Number	Voltage	Watts	Length FT	Amp.
0723-10	120	300	10' Heated Sample Line	2.73
0723-25	120	750	25' Heated Sample Line	6.82
0723-50	120	1500	50' Heated Sample Line	13.64
0723-100	120	2500	100' Heated Sample Line	22.73
*0723-100HD	120	3000	100' Heavy Duty Heated Sample Line	27
0723-100220	120/240	N/A	100' Dual Voltage Heated Sample Line	N/A
0725RNT	Universal Temperature Controller			

Custom lengths, voltage, and configuration available\*Heavy Duty Heated Sample Lines are manufactured to have a continuous operating temperature of 400°F (~204°C) at -20°F ambient temperature. These Heated Sample Lines may be rented through CleanAir Rental

## APPENDIX H

### Sample Line Residence Time

*ECSi*

Sample Line Volume Calculation

Data: 100 ft of 3/8" Teflon line with wall thickness of .030"

Interior Volume Radius: (outside diameter/2) – (wall thickness) = (.375"/2) - .030" = 0.1575"

0.1575" \* 1 ft/12 inches = 0.013125 feet

Cylindrical Volume =  $\pi * r^2 * \text{length}$  =  $3.1459 * (0.013125)^2 * 1 \text{ foot line length}$  = 0.00054193 cubic feet per foot of line

0.00054193 cubic feet \* 28316.8 cc / 1 cubic foot = 15.3457 cc per foot of line

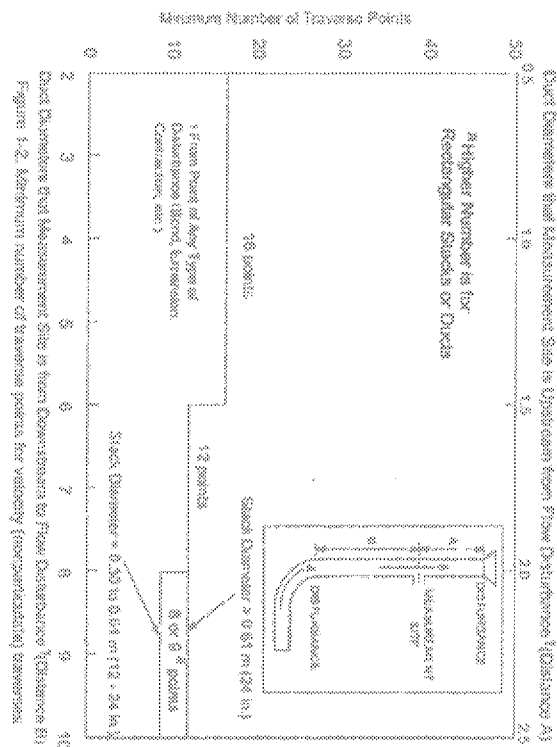
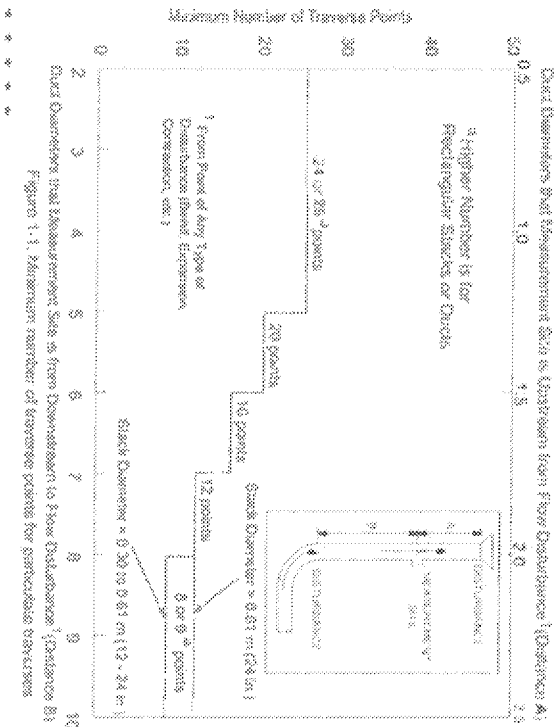
For 100 foot of line, the total interior volume is 1535 cc.

Sample Residence Time Calculation

Sample Residence Time = Volume of sample lines / Sample pump flow rate

= 1535 cc / 500-1000 cc per minute = 1.54 - 3.07 minutes

WB Sample Port Locations	Duct Size/Configuration	Length (Diameter)	Width	Diameter (Eq. Diameter)	Distance from/to Disturbance	Diameters from/to Disturbance	2D or greater downstream?	0.5D or greater upstream?
WB I Inlet	36" round	36		36	Downstream	2.2	YES	
				36	Upstream	1.2		YES
WB I Outlet	30" x 20" rectangular	30	20	24	Downstream	60	YES	
				24	Upstream	2.5		YES
WB II Inlet	28" round	28		28	Downstream	108	YES	
				28	Upstream	3.9		YES
WB II Outlet	28" square	28	28	28	Downstream	56	YES	
				28	Upstream	2.0		YES
				28	Upstream	6.1		YES



$$D_p = \frac{2(L)(W)}{L + W}$$

**APPENDIX I**  
**Calibration Data**

*ECSI*

# ETHYLENE OXIDE SOURCE TEST/CALIBRATION DATA

Client: Sterigenics-Willowbrook ISource Tested: AAT Safe Cell SystemDate: 9/21/18

## PRE CALIBRATION

	Calibration Gas Conc. (ppmv)	1.10 ppm EtO	10.1 ppm EtO	100 ppm EtO	1000 ppm EtO	10080 ppm EtO			
Inlet (FID)	Area Counts #1	39.7	3.70	36.0					
	Area Counts #2/3	<del>39.6</del> 39.5	<del>3.71</del> 3.69	<del>35.3</del> 35.2					
	Average Area	39.60	3.700	35.80			Sample Line Bias Calibration		
	Audit Standard (48.8 ppmv) Result						(Std @ 100 ppmv)		
Outlet (PID)	Calibration Gas Conc. (ppmv) #4	2.73	26.4	250					
	Area Counts #1	2.74	26.4	250					
	Area Counts #2/3	<del>2.73</del> 2.75	<del>25.9</del> 26.1	<del>254</del> 253					
	Average Area	2.740	26.13	252.3			Sample Line Bias Calibration		
	Audit Standard (48.8 ppmv) Result						(Std @ 100 ppmv)		

Run #1 Run #2 Run #3  
 BV Start: 0913 0930 0952  
 BV Stop: 0928 0945 1007

P<sub>bar</sub>: 28.95

EtO Usage (lbs/yr): \_\_\_\_\_

%H<sub>2</sub>O: \_\_\_\_\_

Cycles Per Week: \_\_\_\_\_

## MID/POST CALIBRATION

	Calibration Gas Conc. (ppmv)	1.10 ppm EtO	10.1 ppm EtO	100 ppm EtO	1000 ppm EtO	10080 ppm EtO			
Inlet (FID)	Mid-Cal								
	Post Cal			36.1 = 99.8 ppm					
	Audit Standard (48.8 ppmv) Result								
Outlet (PID)	Calibration Gas Conc. (ppmv)	1.10 ppm EtO	10.1 ppm EtO	100 ppm EtO					
	Mid-Cal								
	Post Cal		25.9 = 10.2 ppm						
	Audit Standard (48.8 ppmv) Result								

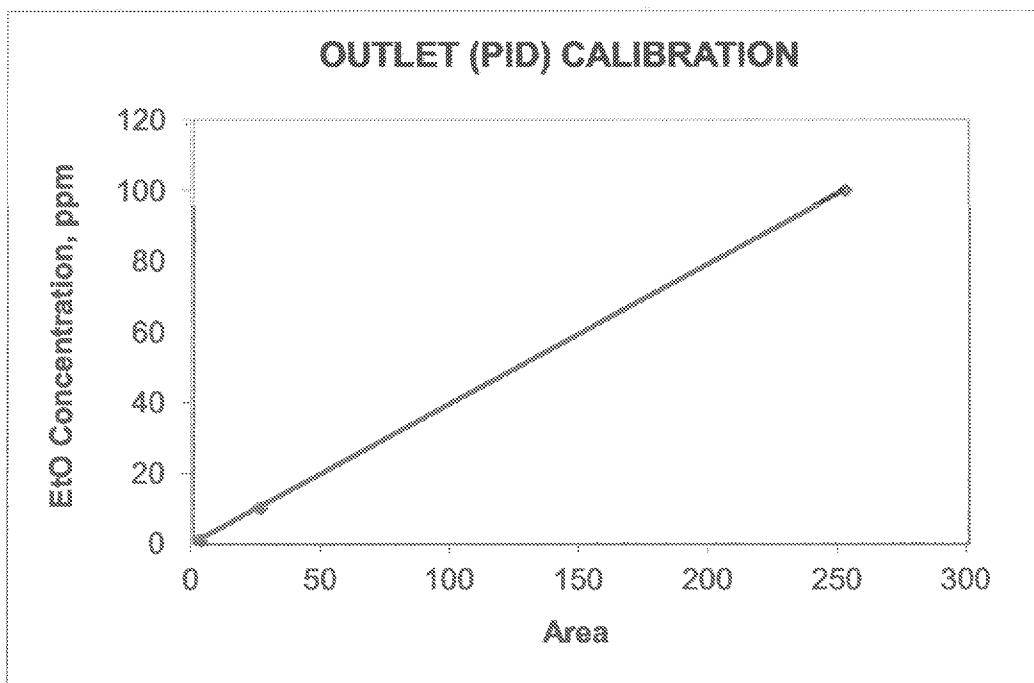
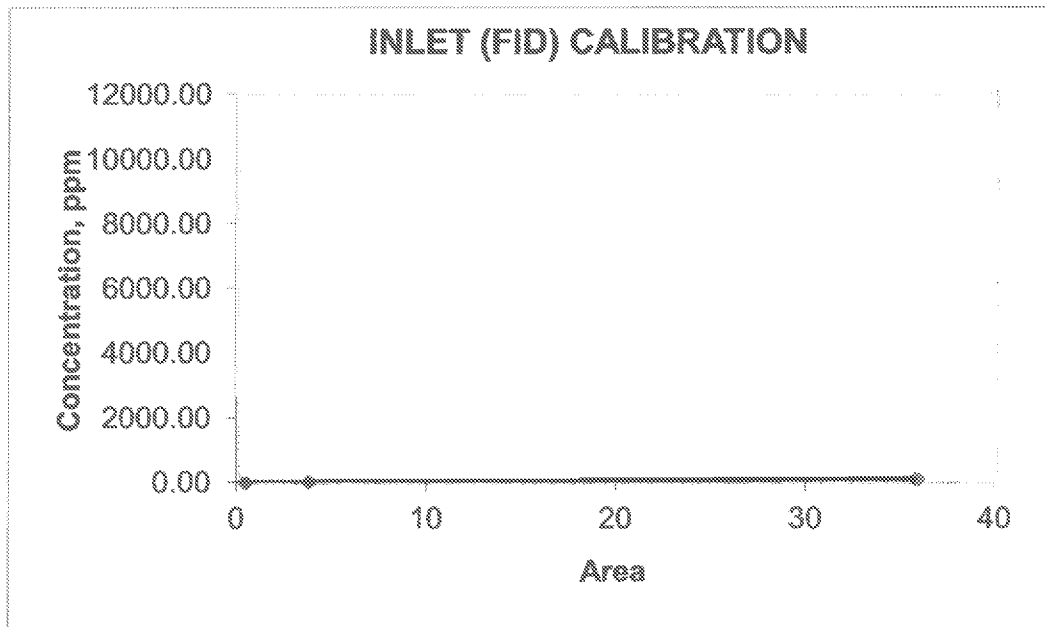
ECSi

Plots (2)

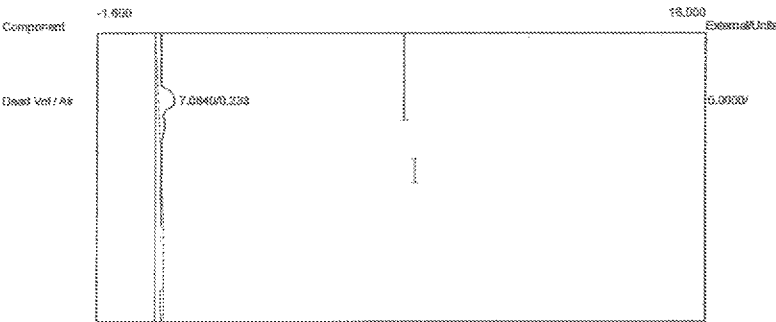
## EtO Calibrations

Site: Sterigenics - Willowbrook 1

Date: 9/21/2018

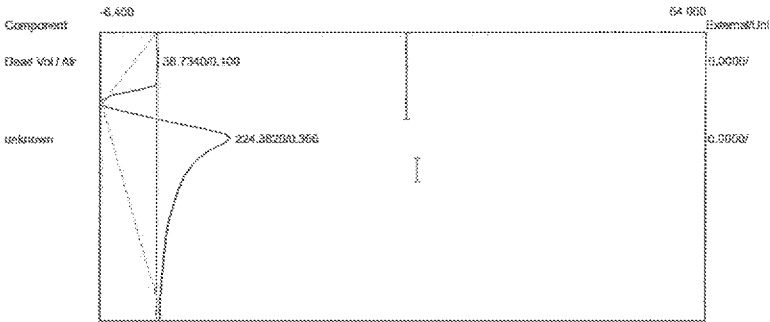


Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:02:52  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carboxpack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-Amb.CHR (c:\peak359)  
Sample: Ambient Background  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.233	7.0840	0.0000	
		7.0840	0.0000	

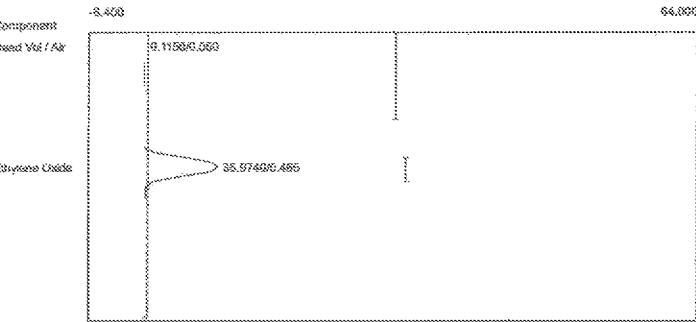
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:02:52  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carboxpack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-Amb.CHR (c:\peak359)  
Sample: Ambient Background  
Operator: D. Kremer



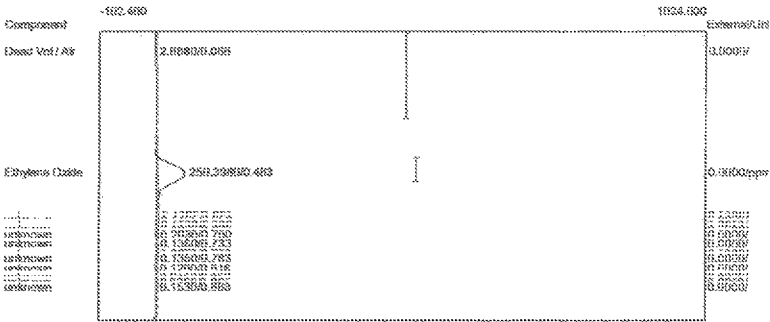
Component	Retention	Area	External	Units
Dead Vol / Air	0.100	38.7340	0.0000	
		38.7340	0.0000	

Lab name: ECSI  
 Client: Sterigenics - Willowbrook 1  
 Client ID: PreCal  
 Analysis date: 09/21/2018 05:14:01  
 Method: Direct Injection  
 Description: CHANNEL 1 - FID  
 Column: 1% SP-1000, Carboxpack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto1-100.cpt  
 Data file: 1Ster1WB2018-CD1.CHR (c:\peak359)  
 Sample: 100 ppm std  
 Operator: D. Kremer

Lab name: ECSI  
 Client: Sterigenics - Willowbrook 1  
 Client ID: PreCal  
 Analysis date: 09/21/2018 05:14:01  
 Method: Direct Injection  
 Description: CHANNEL 2 - PID  
 Column: 1% SP-1000, Carboxpack B  
 Carrier: HELIUM  
 Temp. prog: eto-100.tem  
 Components: eto2-100.cpt  
 Data file: 2Ster1WB2018-CD1.CHR (c:\peak359)  
 Sample: 100 ppm Std  
 Operator: D. Kremer



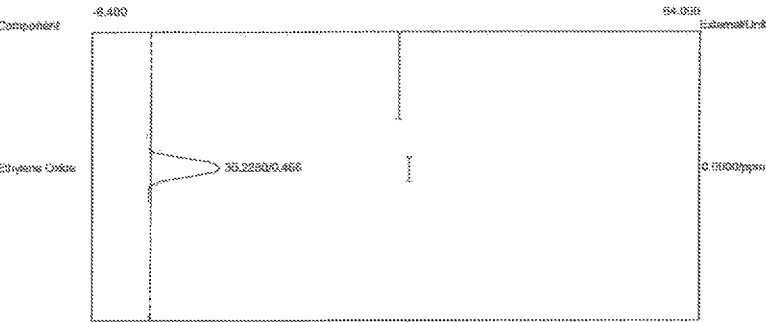
Component	Retention	Area	External	Units
Dead Vol / Air	0.050	0.1150	0.0000	
Ethylene Oxide	0.466	35.9740	0.0000	ppm
		36.0890	0.0000	



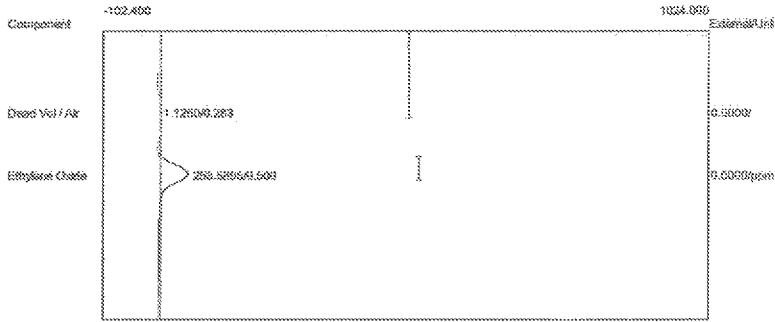
Component	Retention	Area	External	Units
Dead Vol / Air	0.066	2.8880	0.0000	
Ethylene Oxide	0.483	250.3980	0.0000	ppm
		253.2860	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:17:09  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C02.CHR (c:\peak359)  
Sample: 100 ppm std  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:17:09  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C02.CHR (c:\peak359)  
Sample: 100 ppm Std  
Operator: D. Kremer



Component	Retention	Area	External	Units
Ethylene Oxide	0.466	35.2280	0.0000	ppm
		35.2280	0.0000	



Component	Retention	Area	External	Units
Dead Vol / Air	0.283	1.1260	0.0000	
Ethylene Oxide	0.500	253.5895	0.0000	ppm
		254.7155	0.0000	

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 05:19:40

Method: Direct Injection

Description: CHANNEL 1 - FID

Column: 1% SP-1000, CarboPack B

Carrier: HELIUM

Temp. prog: eto-100.tem

Components: eto1-100.cpt

Data file: 1Ster1WB2018-C03.CHR (c:\peak359)

Sample: 100 ppm std

Operator: D. Kremer

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 05:19:40

Method: Direct Injection

Description: CHANNEL 2 - PID

Column: 1% SP-1000, CarboPack B

Carrier: HELIUM

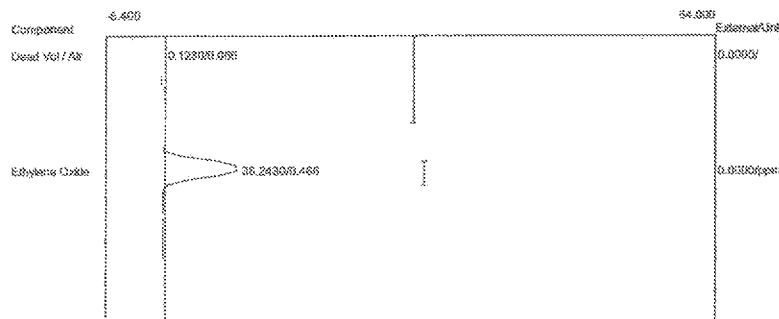
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Components: eto2-100.cpt

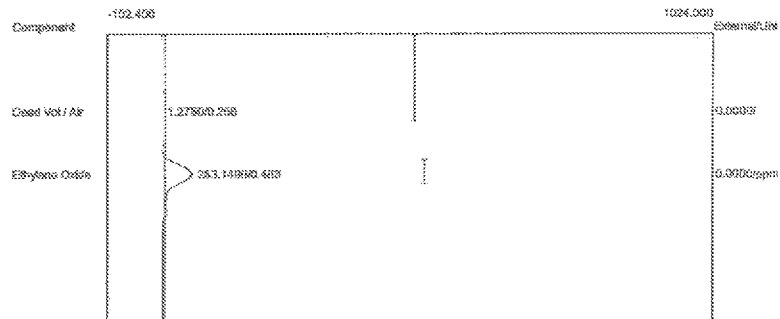
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Sample: 100 ppm Std

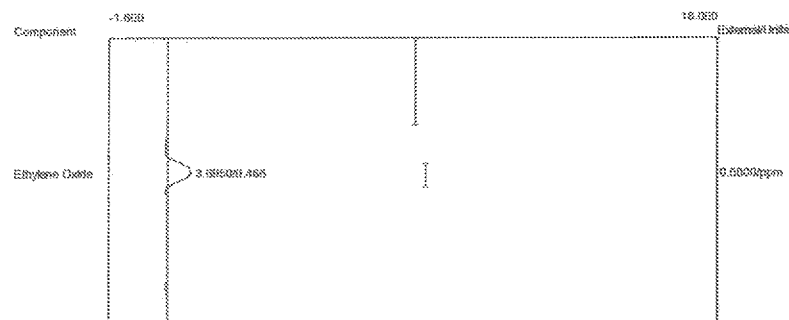
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.066	0.1230	0.0000	
Ethylene Oxide	0.466	36.2430	0.0000	ppm
		36.3660	0.0000	

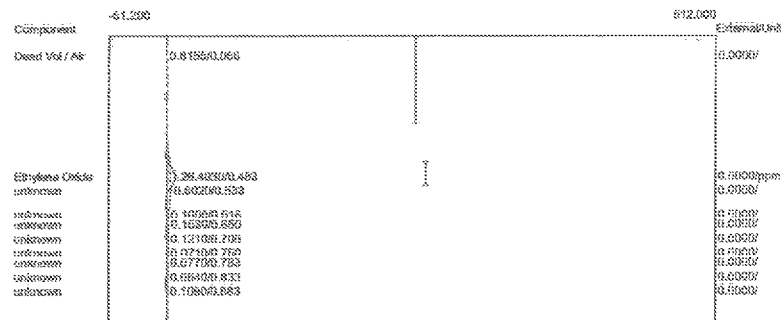


Component	Retention	Area	External	Units
Dead Vol / Air	0.286	1.2750	0.0000	
Ethylene Oxide	0.483	253.1490	0.0000	ppm
		254.4240	0.0000	



Component	Retention	Area	External Units
Ethylene Oxide	0.466	3.6950	0.0000 ppm
		3.6950	0.0000

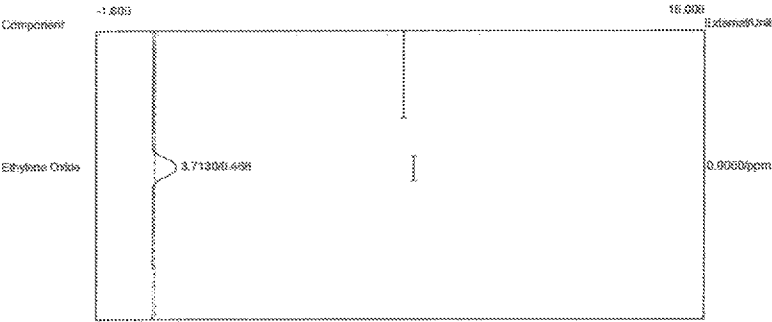
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:21:40  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 25ster1WB2018-C04.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer



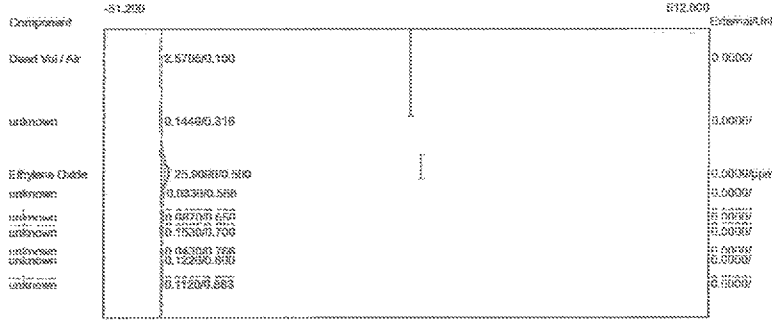
Component	Retention	Area	External	Units
Dead Vol / Air	0.066	0.8155	0.0000	
Ethylene Oxide	0.483	26.4030	0.0000	ppm
		27.2185	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:26:02  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C05.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:26:02  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C05.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer



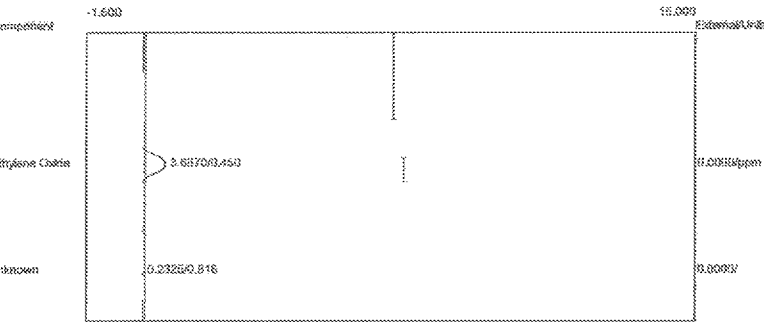
Component	Retention	Area	External	Units
Ethylene Oxide	0.466	3.7130	0.0000	ppm
		3.7130	0.0000	



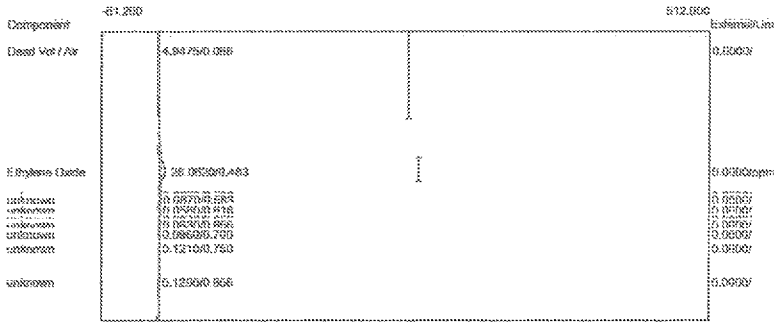
Component	Retention	Area	External	Units
Dead Vol / Air	0.100	2.5705	0.0000	
Ethylene Oxide	0.500	25.9090	0.0000	ppm
		28.4795	0.0000	

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:30:06  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C06.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:30:06  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C06.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer



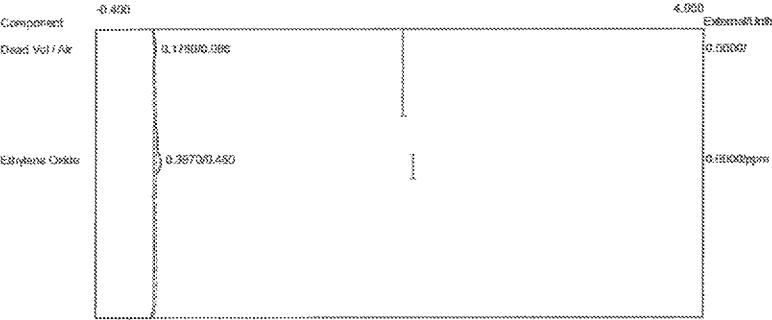
Component	Retention	Area	External Units
Ethylene Oxide	0.450	3.6870	0.0000 ppm
		3.6870	0.0000



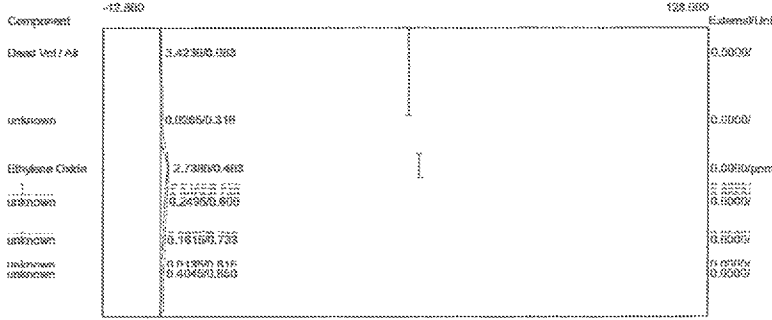
Component	Retention	Area	External Units
Dead Vol / Air	0.066	4.9475	0.0000
Ethylene Oxide	0.483	26.0620	0.0000 ppm
		31.0095	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:35:21  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C07.CHR (c:\peak359)  
Sample: 40-4 ppm std 1.10  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:35:21  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C07.CHR (c:\peak359)  
Sample: 40-4 ppm std 1.10  
Operator: D. Kremer



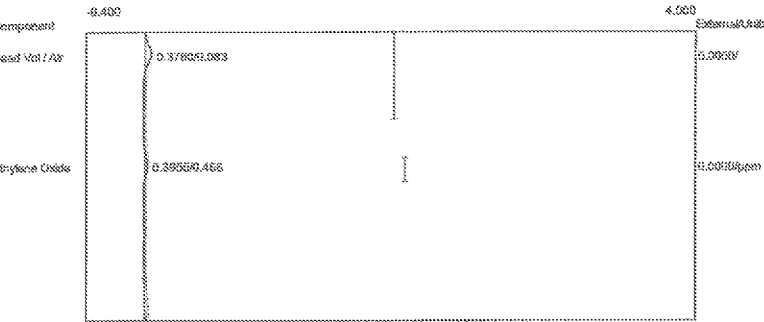
Component	Retention	Area	External Units
Dead Vol / Air	0.066	0.1780	0.0000
Ethylene Oxide	0.450	0.3970	0.0000 ppm
		0.5750	0.0000



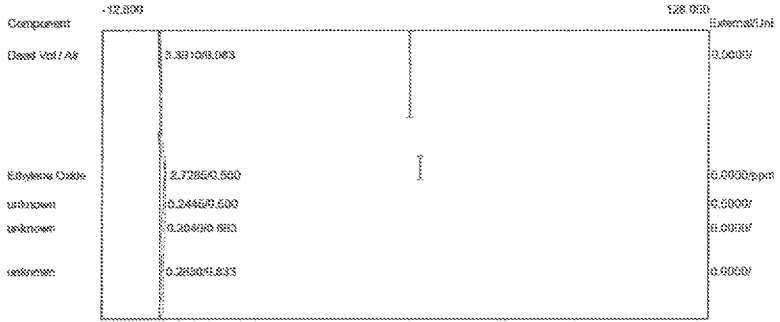
Component	Retention	Area	External Units
Dead Vol / Air	0.083	3.4230	0.0000
Ethylene Oxide	0.483	2.7380	0.0000 ppm
		6.1610	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:42:38  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C08.CHR (c:\peak359)  
Sample: 40-4 ppm std 1.10  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:42:38  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C08.CHR (c:\peak359)  
Sample: 40-4 ppm std 1.10  
Operator: D. Kremer



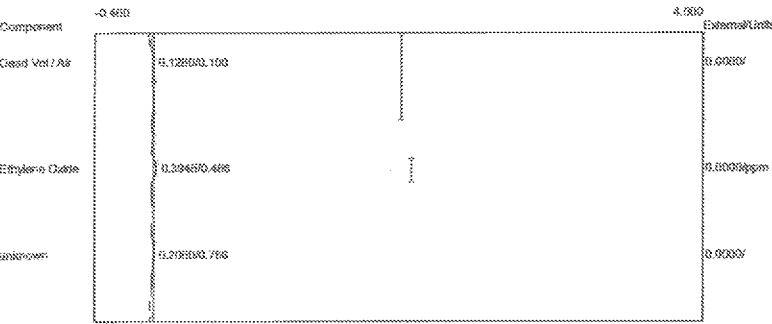
Component	Retention	Area	External Units
Dead Vol / Air	0.083	0.3760	0.0000
Ethylene Oxide	0.466	0.3955	0.0000 ppm
		0.7715	0.0000



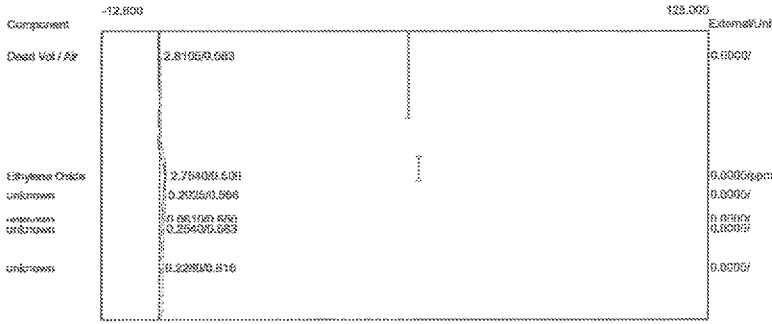
Component	Retention	Area	External Units
Dead Vol / Air	0.083	3.3910	0.0000
Ethylene Oxide	0.500	2.7285	0.0000 ppm
		6.1195	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:52:32  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C09.CHR (c:\peak359)  
Sample: 10-1 ppm std 1.10  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:52:32  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, CarboPack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C09.CHR (c:\peak359)  
Sample: 10-1 ppm std 1.10  
Operator: D. Kremer



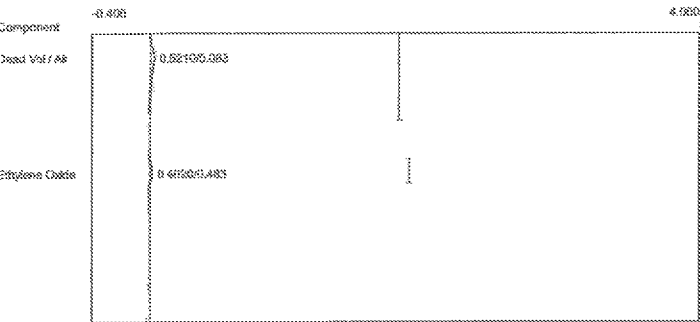
Component	Retention	Area	External Units
Dead Vol / Air	0.100	0.1280	0.0000
Ethylene Oxide	0.466	0.3945	0.0000 ppm
		0.5225	0.0000



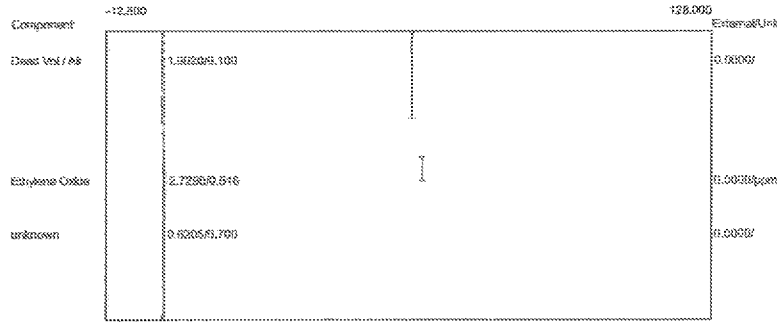
Component	Retention	Area	External Units
Dead Vol / Air	0.083	2.8105	0.0000
Ethylene Oxide	0.500	2.7540	0.0000 ppm
		5.5545	0.0000

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:59:13  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbo-pack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-4C.CHR (c:\peak359)  
Sample: 46.1 ppm std 1.10  
Operator: D. Kremer

Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PreCal  
Analysis date: 09/21/2018 05:59:13  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbo-pack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-4C.CHR (c:\peak359)  
Sample: 46.1 ppm std 1.10  
Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.083	0.5210	0.0000
Ethylene Oxide	0.483	0.4020	0.0000 ppm
		0.9230	0.0000



Component	Retention	Area	External Units
Dead Vol / Air	0.100	1.9020	0.0000
Ethylene Oxide	0.516	2.7290	0.0000 ppm
		4.6310	0.0000

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 06:08:35

Method: Direct Injection

Description: CHANNEL 1 - FID

Column: 1% SP-1000, Carboxpack B

Carrier: HELIUM

Temp. prog: eto-100.tem

Components: eto1-100.cpt

Data file: 1Ster1WB2018-Audit.CHR (c:\peak359)

Sample: 48.8 ppm audit std

Operator: D. Kremer

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 06:08:35

Method: Direct Injection

Description: CHANNEL 2 - PID

Column: 1% SP-1000, Carboxpack B

Carrier: HELIUM

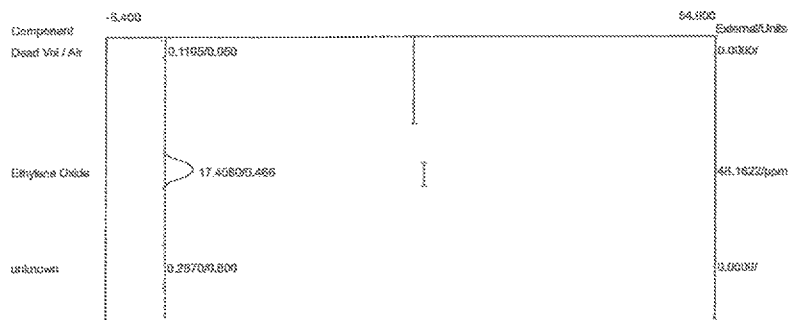
Temp. prog: eto-100.tem

Components: eto2-100.cpt

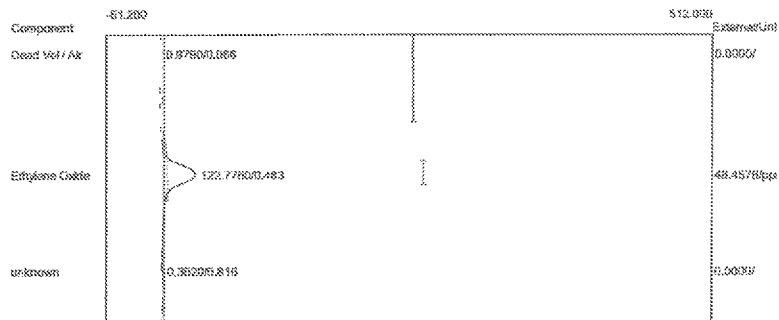
Data file: 2Ster1WB2018-Audit.CHR (c:\peak359)

Sample: 48.8 ppm audit std

Operator: D. Kremer



Component	Retention	Area	External Units
Dead Vol / Air	0.050	0.1105	0.0000
Ethylene Oxide	0.466	17.4080	48.1622 ppm
		17.5185	48.1622



Component	Retention	Area	External Units
Dead Vol / Air	0.066	0.9790	0.0000
Ethylene Oxide	0.483	122.7760	48.4576 ppm
		123.7550	48.4576

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 06:15:37

Method: Direct Injection

Description: CHANNEL 1 - FID

Column: 1% SP-1000, Carbopack B

Carrier: HELIUM

Temp. prog: eto-100.tem

Components: eto1-100.cpt

Data file: 1Ster1WB2018-C10.CHR (c:\peak359)

Sample: 100 ppm std sample line bias

Operator: D. Kremer

Lab name: ECSi

Client: Sterigenics - Willowbrook 1

Client ID: PreCal

Analysis date: 09/21/2018 06:20:23

Method: Direct Injection

Description: CHANNEL 2 - PID

Column: 1% SP-1000, Carbopack B

Carrier: HELIUM

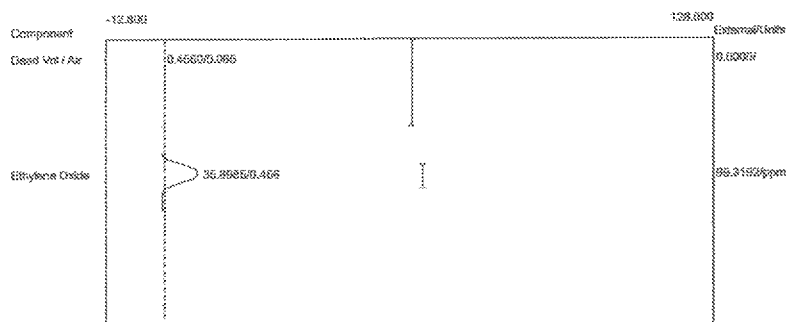
Temp. prog: eto-100.tem

Components: eto2-100.cpt

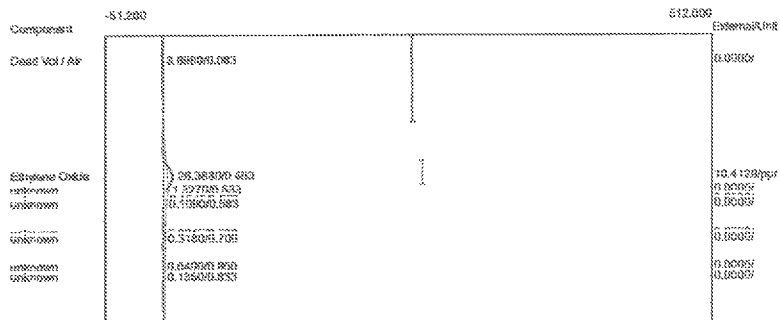
Data file: 2Ster1WB2018-C11.CHR (c:\peak359)

Sample: 10.1 ppm std sample line bias

Operator: D. Kremer



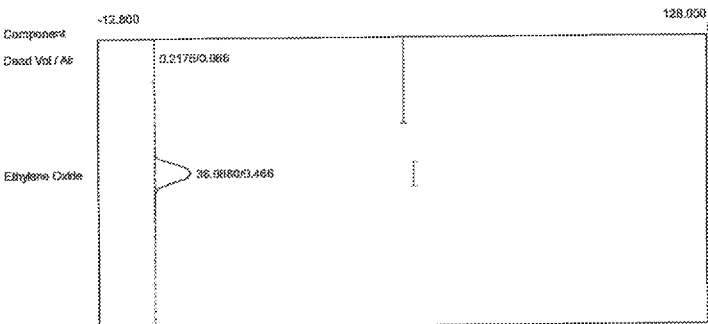
Component	Retention	Area	External Units
Dead Vol / Air	0.066	0.4660	0.0000
Ethylene Oxide	0.466	35.8985	99.3192 ppm
		36.3645	99.3192



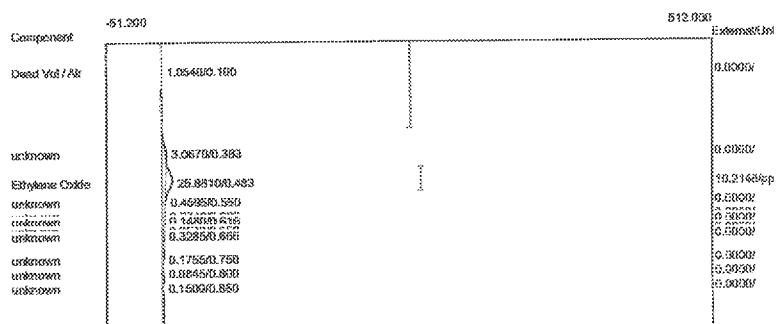
Component	Retention	Area	External Units
Dead Vol / Air	0.083	3.8980	0.0000
Ethylene Oxide	0.483	26.3830	10.4129 ppm
		30.2810	10.4129

Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: PostCal  
Analysis date: 09/21/2018 11:01:28  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1Ster1WB2018-C11.CHR (c:\peak359)  
Sample: 100 ppm std  
Operator: D. Kremer

Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: PostCal  
Analysis date: 09/21/2018 11:06:36  
Method: Direct Injection  
Description: CHANNEL 2 - PID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto2-100.cpt  
Data file: 2Ster1WB2018-C12.CHR (c:\peak359)  
Sample: 10.1 ppm std  
Operator: D. Kremer

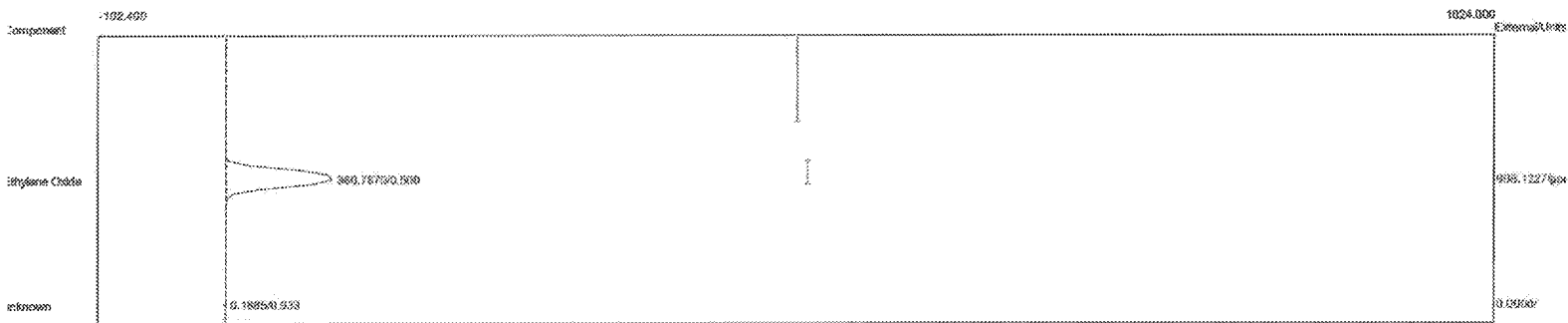


Component	Retention	Area	External Units
Dead Vol / Air	0.066	0.2175	0.0000
Ethylene Oxide	0.466	36.0880	99.8435 ppm
		36.3055	99.8435



Component	Retention	Area	External Units
Dead Vol / Air	0.100	1.0540	0.0000
Ethylene Oxide	0.483	25.8810	10.2148 ppm
		26.9350	10.2148

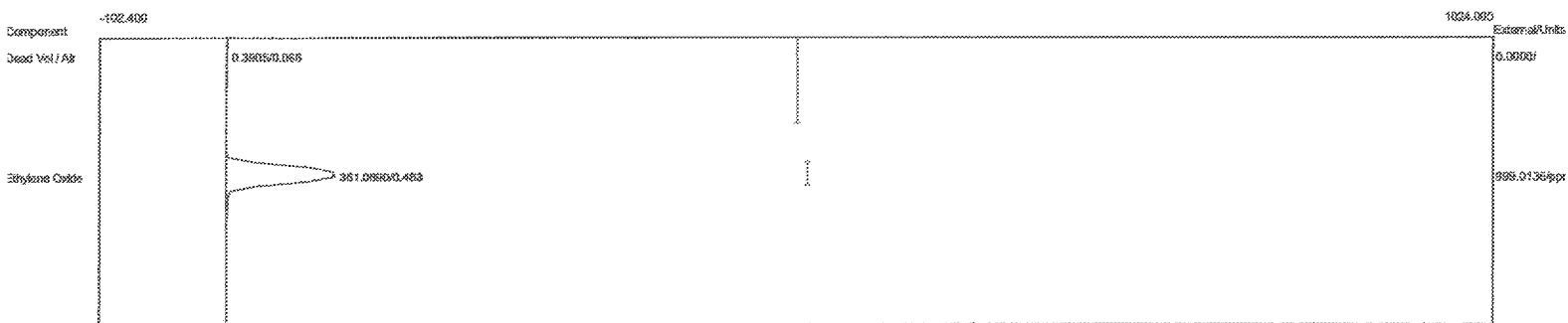
Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: PostCal  
Analysis date: 09/24/2018 19:35:07  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1SterWB2018-C01.CHR (c:\peak359)  
Sample: 1000 ppm std  
Operator: D. Kremer



Component	Retention	Area	External	Units
Ethylene Oxide	0.500	360.7670	998.1227	ppm
		360.7670	998.1227	

\* 1000 ppm std run post-test using calibration curve  
from test to demonstrate linearity @ 100-1000 ppm,  
this chromatogram is 1/3

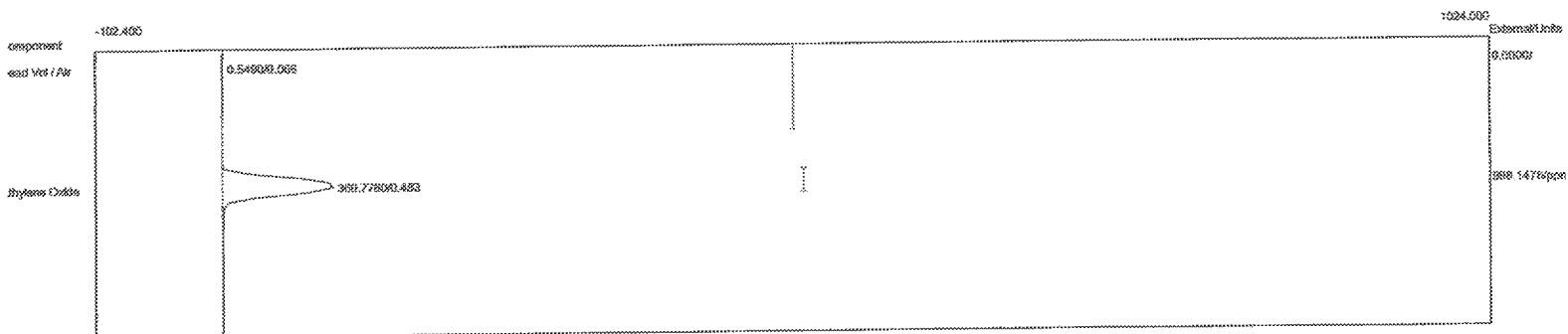
Lab name: ECSi  
Client: Sterigenics - Willowbrook 1  
Client ID: PostCal  
Analysis date: 09/24/2018 19:37:34  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1SterWB2018-C02.CHR (c:\peak359)  
Sample: 1000 ppm std  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.066	0.3905	0.0000	
Ethylene Oxide	0.483	361.0890	999.0136	ppm
		361.4795	999.0136	

2/3

Lab name: ECSI  
Client: Sterigenics - Willowbrook 1  
Client ID: PostCal  
Analysis date: 09/24/2018 19:39:26  
Method: Direct Injection  
Description: CHANNEL 1 - FID  
Column: 1% SP-1000, Carbopack B  
Carrier: HELIUM  
Temp. prog: eto-100.tem  
Components: eto1-100.cpt  
Data file: 1SterWB2018-C03.CHR (c:\peak359)  
Sample: 1000 ppm std  
Operator: D. Kremer



Component	Retention	Area	External	Units
Dead Vol / Air	0.066	0.5490	0.0000	
Ethylene Oxide	0.483	360.7760	998.1476	ppm
		361.3250	998.1476	

3/3

**APPENDIX J**  
**Gas Certifications**

*ECSi*

**Scott Specialty Gases**

100 CAJON BLVD., SAN BERNARDINO, CA 92411

**CERTIFIED WORKING CLASS***Single-Certified Calibration Standard*

Phone: 909-887-2571 Fax: 909-887-0549

**CERTIFICATE OF ACCURACY: Certified Working Class Calibration Standard****Product Information**Project No.: 02-57164-001  
Item No.: 02020001310TCL  
P.O. No.: VBL-D. KREMERCylinder Number: CAL4448  
Cylinder Size: CL  
Certification Date: 20Apr2018**Customer**ECSI, INC  
PO BOX 1498  
SAN CLEMENTE, CA 92674**CERTIFIED CONCENTRATION****Component Name**ETHYLENE OXIDE  
NITROGEN**Concentration  
(Moles)**1.10 PPM  
BALANCE**Accuracy  
(+/-%)**

5

**TRACEABILITY****Traceable To**

Scott Reference Standard

APPROVED BY:

  
MT

DATE: 4-20-18

**SPECIFICATIONS**

Component Name	Requested Concentration (Moles)		Certified Concentration (Moles)		Blend Tolerance Result (+/- %)	Certified Accuracy Result (+/- %)
ETHYLENE OXIDE NITROGEN	1.	PPM BAL	1.10	PPM BAL	10.0	5.00

**TRACEABILITY**

Traceable To  
Scott Reference Standard

**PHYSICAL PROPERTIES**

Cylinder Size: CL                      Pressure: 1200 PSIG  
Expiration Date: 20Apr2020

**SPECIAL HANDLING INSTRUCTIONS**

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

**COMMENTS**

**Scott Specialty Gases**

100 CAJON BLVD., SAN BERNARDINO, CA 92411

**CERTIFIED WORKING CLASS***Single-Certified Calibration Standard*

Phone: 909-887-2571 Fax: 909-887-0549

**CERTIFICATE OF ACCURACY: Certified Working Class Calibration Standard****Product Information**Project No.: 02-57164-003  
Item No.: 02020001320TCL  
P.O. No.: VBL - D. KREMERCylinder Number: CLM003232  
Cylinder Size: CL  
Certification Date: 20Apr2018**Customer**ECSI, INC  
PO BOX 1498  
SAN CLEMENTE, CA 92674**CERTIFIED CONCENTRATION****Component Name****Concentration  
(Moles)****Accuracy  
(+/-%)**ETHYLENE OXIDE  
NITROGEN10.1 PPM  
BALANCE

5

**TRACEABILITY****Traceable To**

Scott Reference Standard

APPROVED BY:

MT

DATE: 4-20-18

**SPECIFICATIONS**

Component Name	Requested Concentration (Moles)		Certified Concentration (Moles)		Blend Tolerance Result (+/- %)	Certified Accuracy Result (+/- %)
ETHYLENE OXIDE NITROGEN	10.	PEM BAL	10.1	PEM BAL	1.0	5.00

**TRACEABILITY**

Traceable To  
Scott Reference Standard

**PHYSICAL PROPERTIES**

Cylinder Size: CL                      Pressure: 1200 PSIG  
Expiration Date: 20Apr2020

**SPECIAL HANDLING INSTRUCTIONS**

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

**COMMENTS**

**Scott Specialty Gases**

100 CAJON BLVD., SAN BERNARDINO, CA 92411

Phone: 909-887-2571 Fax: 909-887-0549

**CERTIFIED WORKING CLASS***Single-Certified Calibration Standard***CERTIFICATE OF ACCURACY: Certified Working Class Calibration Standard**Product Information

Project No.: 02-57164-004  
Item No.: 02020001330TCL  
P.O. No.: VBL - D. KREMER

Cylinder Number: CLM011385  
Cylinder Size: CL  
Certification Date: 20Apr2018

Customer

ECSI, INC  
PO BOX 1498  
SAN CLEMENTE, CA 92674

**CERTIFIED CONCENTRATION**Component NameConcentration  
(Moles)Accuracy  
(+/-%)

ETHYLENE OXIDE  
NITROGEN

100. PPM  
BALANCE

5

**TRACEABILITY**Traceable To:

Scott Reference Standard

APPROVED BY:

*B-McCully*  
BLM

DATE: 4-20-18

**SPECIFICATIONS**

Component Name	Requested Concentration (Moles)		Certified Concentration (Moles)		Blend Tolerance Result (+/- %)	Certified Accuracy Result (+/- %)
ETHYLENE OXIDE	100.	PEM	100.	PEM	.0	5.00
NITROGEN		BAL		BAL		

**TRACEABILITY**

Traceable To  
Scott Reference Standard

**PHYSICAL PROPERTIES**

Cylinder Size: CL

Pressure: 1300 PSIG  
Expiration Date: 20Apr2020

Valve Connection: CGA 350

**SPECIAL HANDLING INSTRUCTIONS**

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

**COMMENTS**

**Scott Specialty Gases**

100 CAJON BLVD., SAN BERNARDINO, CA 92411

**CERTIFIED WORKING CLASS***Single-Certified Calibration Standard*

Phone: 909-887-2571 Fax: 909-887-0549

**CERTIFICATE OF ACCURACY: Certified Working Class Calibration Standard****Product Information**

Project No.: 02-57184-005  
Item No.: 02020001340TCL  
P.O. No.: VBL - D. KREMER

Cylinder Number: CLM002810  
Cylinder Size: CL  
Certification Date: 20Apr2018

**Customer**

ECSI, INC  
PO BOX 1498  
SAN CLEMENTE, CA 92674

**CERTIFIED CONCENTRATION**

<u>Component Name</u>	<u>Concentration (Moles)</u>	<u>Accuracy (+/-%)</u>
ETHYLENE OXIDE NITROGEN	1,000. PPM BALANCE	5

**TRACEABILITY****Traceable To:**

Scott Reference Standard

APPROVED BY:

  
BLM

DATE: 4-20-18

**SPECIFICATIONS**

Component Name	Requested Concentration (Moles)		Certified Concentration (Moles)		Blend Tolerance Result (+/- %)	Certified Accuracy Result (+/- %)
ETHYLENE OXIDE	1,000.	PEM	1,000.	PEM	.0	5.00
NITROGEN		BAL		BAL		

**TRACEABILITY**

Traceable To  
Scott Reference Standard

**PHYSICAL PROPERTIES**

Cylinder Size: CL

Pressure: 1200 PSIG  
Expiration Date: 20Apr2020

Valve Connection: CGA 350

**SPECIAL HANDLING INSTRUCTIONS**

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

Use of calibration standards at or below dew point temperature may result in calibration error.

**COMMENTS**

**Scott Specialty Gases**

100 CAJON BLVD., SAN BERNARDINO, CA 92411

Phone: 909-887-2571 Fax: 909-887-0549

**CERTIFIED WORKING CLASS***Single-Certified Calibration Standard***CERTIFICATE OF ACCURACY: Certified Working Class Calibration Standard**Product InformationProject No.: 02-57164-006  
Item No.: 02020001340TCL  
P.O. No.: VBL - D. KREMERCylinder Number: CLM005787  
Cylinder Size: CL  
Certification Date: 20Apr2018CustomerECSI, INC  
PO BOX 1498  
SAN CLEMENTE, CA 92674**CERTIFIED CONCENTRATION**Component NameConcentration  
(Moles)Accuracy  
(+/-%)ETHYLENE OXIDE  
NITROGEN10,080. PPM  
BALANCE

5

**TRACEABILITY**Traceable To

Scott Reference Standard

APPROVED BY:

  
BLM

DATE: 4-20-18

**SPECIFICATIONS**

Component Name	Requested Concentration (Moles)		Certified Concentration (Moles)		Blend Tolerance Result (+/- %)	Certified Accuracy Result (+/- %)
ETHYLENE OXIDE	10,000.	PPM	10,080.	PPM	.8	5.00
NITROGEN		BAL		BAL		

**TRACEABILITY**

Traceable To  
Scott Reference Standard

**PHYSICAL PROPERTIES**

Cylinder Size: CL

Pressure: 700 PSIG  
Expiration Date: 20Apr2020

Valve Connection: CGA 350

**SPECIAL HANDLING INSTRUCTIONS**

Do not use or store cylinder at or below the stated dew point temperature. Possible condensation of heavier components could result. In the event the cylinder has been exposed to temperatures at or below the dew point, place cylinder in heated area for 24 hours and then roll cylinder for 15 minutes to re-mix.

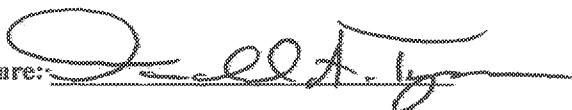
Use of calibration standards at or below dew point temperature may result in calibration error.

**COMMENTS**

**MESA****CERTIFICATE OF ANALYSIS**

<b>Customer Name:</b>	ECSi, Inc.	<b>Cylinder Number:</b>	SA25925
<b>Stock or Analyzer Tag Number:</b>	N/A	<b>Product Class:</b>	Certified Standard
<b>Customer Reference:</b>	Verbal- Dan	<b>Cylinder - Contents<sup>1</sup>:</b>	28 CF @ 2000 PSI
<b>MESA Reference:</b>	104448	<b>Cylinder-CGA:</b>	A006-HP-BR/350
<b>Date of Certification:</b>	4/19/2018	<b>Analysis Method:</b>	GC-TCD/FID
<b>Recommended Shelf Life:</b>	2 Years	<b>Preparation Method:</b>	Gravimetric

<b>Component</b>	<b>Requested Concentration<sup>2</sup></b>	<b>Reported Concentration<sup>2,3</sup></b>
Ethylene Oxide	50 ppm	48.8 ppm
Nitrogen	Balance	Balance

**Authorized Signature:**


1. The fill pressure shown on the COA is as originally quoted. The fill pressure measured by the customer may differ from the fill pressure originally quoted due to temperature effects, compressibility of the individual components when blended together in the cylinder, gauge accuracy or reduction in content volume before shipping as a result of samples withdrawn for laboratory QC necessary to ensure product quality.
2. Unless otherwise stated, concentrations are given in molar units.
3. Vapor pressure mixes are blended at a sufficiently low pressure so as to eliminate phase separation under most low temperature conditions encountered during transport or storage. However, it is generally recommended that cylinders containing vapor pressure restricted mixes be placed on the floor in a horizontal position and rolled back and forth to improve homogeneity of the gas phase mixture before being put into service.

Analytical Gas Standards are prepared and analyzed using combinations of NIST traceable weights, SRM's provided by NIST, or internal gas standards that have been verified for accuracy using procedures published by the US-EPA. Pure gases are analyzed and certified for purity using minor component Analytical Gas Standards prepared according to the methods specified above. Balances are calibrated to NIST test weights covered by NIST test number 822/256175/96. Reference Certification #'s: 163/W, 830/N and 3280. Calibration methods are in conformance with MIL-STD 45662A.

**MESA Specialty Gases & Equipment**

division of MESA International Technologies, Inc.

3619 Pendleton Avenue, Suite C • Santa Ana, California 92704 • USA  
 TEL: 714-434-7102 • FAX: 714-434-8006 • E-mail: mail@mesagas.com  
 On-line Catalog at www.mesagas.com

**APPENDIX K**  
**Limit of Detection**

*ECSI*

Detection Limit Study

Step 1 : Prepare and analyze at least seven standards prepared at or near the estimated detection limit

Step 2 : Record and calculate the standard deviation of the replicate measurements.

Analysis Number	1	2	3	4	5	6	7	8	9	10
Result	1.007	1.011	1.015	1.01	1.071	1.071	1.067			

Calculated Standard Deviation = 0.0316

Step 3 : Determine the Method Detection Limit (MDL) by multiplying the student T value appropriate for 99% confidence level and the standard deviation estimate with in n-1 degrees of freedom

Number of Replicates	7	8	9	10
T-values	3.143	2.998	2.896	2.821

Method Detection Limit: = 0.10

**Wagner, Kevin**

---

**From:** Hoffman, Kathy  
**Sent:** Tuesday, September 25, 2018 8:42 AM  
**To:** Wagner, Kevin  
**Subject:** FW: MDL calculations and additional information.  
**Attachments:** Detection Limit Master Spreadsheet.xls

**From:** Shappley, Ned [<mailto:Shappley.Ned@epa.gov>]  
**Sent:** Monday, September 24, 2018 12:02 PM  
**To:** Hoffman, Kathy; [dankremer@ecsl.com](mailto:dankremer@ecsl.com)  
**Cc:** Sieffert, Margaret; Mattison, Kevin; Merrill, Raymond; Johnson, Steffan  
**Subject:** MDL calculations and additional information.

Dan/Kathy,

As we discussed on site, attached is the spreadsheet (Note, this is not an official EPA spreadsheet) I used to determine the MDL (i.e., LOD) for the testing last week at Sterigenics. It is important to include all raw data associated with this study as well as a discussion of the procedures used. The reference for how MDL studies should be performed can be found in Section 15.2 of Method 301 (40 CFR Part 63), which links you to 40 CFR Part 136, Appendix B (see below). In this instance, I am making the recommendation to Illinois EPA to accept this MDL study with just spiked samples and collected over a shorter time period.

Based on the 7 replicate values I calculated using the low calibration response, in lieu of reporting a ND, you should report a <0.10 ppm for the measured concentration. It is important to use this MDL value when calculating the DRE. Going forward you should consider repeating the MDL for each test program or include a MDL verification step to ensure that your system is capable of measuring at these low-levels. For future MDL studies, it is strongly suggested you develop an MDL using a similar matrix (i.e., in air) as opposed to a calibration gas cylinder. I suggest filling a Tedlar bag with carbon-free air and injecting a concentration of EtO into the bag targeting a concentration in the Tedlar Bag of approximately 0.3 to 0.5 ppm. This type of evaluation would best replicate the sample matrix as measured by the GC.

**Additional Information:**

Going forward, it is important to use the procedures that were utilized during the Sterigenics for future tests, making sure to 1) verify the sampling testing locations meet all Method 1 criteria, 2) performing all required velocity traverses as required by the method, 3) use of heated sampling system (Method 18 – Section 8.2.2.1.1 and 8.2.2.1.2) to prevent moisture or organic condensation, 4) perform a successful recovery study for direct interface sampling (Method 18 – Section 8.4.1) to verify the efficacy of the sampling system, and 5) to select calibration standards that bracket the sample concentrations (Method 18 – Section 8.2.4.3). These are not recommendations, they are requirements of the method and failure to follow these procedures could be grounds for a regulatory authority to invalidate a test.

Please let me know if you have any questions,

Ned Shappley

40 CFR Part 136, Appendix B

....

(a) Select a spiking level, typically 2—10 times the estimated MDL in Section 1. Spiking levels in excess of 10 times the estimated detection limit may be required for analytes with very poor recovery (e.g., for an analyte with 10% recovery, spiked at 100 micrograms/L, with mean recovery of 10 micrograms/L, the calculated MDL may be around 3 micrograms/L. Therefore, in this example, the spiking level would be 33 times the MDL, but spiking lower may result in no recovery at all).

(b) Process a minimum of seven spiked samples and seven method blank samples through all steps of the method. The samples used for the MDL must be prepared in at least three batches on three separate calendar dates and analyzed on three separate calendar dates. (Preparation and analysis may be on the same day.) Existing data may be used, if compliant with the requirements for at least three batches, and generated within the last twenty four months. The most recent available data for method blanks and spiked samples must be used. Statistical outlier removal procedures should not be used to remove data for the initial MDL determination, since the total number of observations is small and the purpose of the MDL procedure is to capture routine method variability. However, documented instances of gross failures (e.g., instrument malfunctions, mislabeled samples, cracked vials) may be excluded from the calculations, provided that at least seven spiked samples and seven method blanks are available. (The rationale for removal of specific outliers must be documented and maintained on file with the results of the MDL determination.)

.....

(ii) Compute the  $MDL_s$  (the MDL based on spiked samples) as follows:

$$MDL_s = t_{(n-1, 1-\alpha = 0.99)} S_s$$

Where:

$MDL_s$  = the method detection limit based on spiked samples

$t_{(n-1, 1-\alpha = 0.99)}$  = the Student's *t*-value appropriate for a single-tailed 99th percentile *t* statistic and a standard deviation estimate with *n*-1 degrees of freedom. See Addendum Table 1.

$S_s$  = sample standard deviation of the replicate spiked sample analyses.

Ned Shappley | USEPA|OAQPS|AQAD|Measurement Technology Group  
109 TW Alexander Drive (E143-02) | Research Triangle Park, NC 27711  
email: [shappley\\_ned@epa.gov](mailto:shappley_ned@epa.gov) | Phone (919)541-7903

**APPENDIX L**  
**Permits/Protocols**

*ECSi*



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

217/785-1705

## CONSTRUCTION PERMIT NESHAP SOURCE

### PERMITTEE

Sterigenics US, LLC  
Attn: Laura Hartman, EHS Manager  
2015 Spring Road, Suite 650  
Oak Brook, Illinois 60523

Application No.: 18060020

I.D. No.: 043110AAC

Applicant's Designation:

Date Received: June 11, 2018

Subject: Control of the Backvents of the Sterilization Chambers

Date Issued: June 26, 2018

Location: 7775 Quincy and 830 Midway, Willowbrook, DuPage County

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of control of the backvents of the sterilization chambers, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

### 1. Introduction

- a. This permit authorizes control of the existing backvents of the five sterilization chambers (SC-1, SC-2, SC-3, SC-4 and SC-5) at Sterigenic's Willowbrook facilities using the existing control systems that control emissions of ethylene oxide from the vacuum pumps and from aeration.
- b. This permit does not authorize changes to the sterilization chambers or other emission units at the source that would increase their capacity or emissions.
- c. For purposes of this permit, the existing sterilization chambers after their backvents are also connected to control systems are referred to as the "affected units."

### 2. Existing Requirements

This permit does alter established requirements for the affected units, (i.e., applicable emission standards and requirements for testing, monitoring, recordkeeping and reporting), as identified in Sections 4.1 and 4.2 of the Clean Air Act Permit Program (CAAPP) permit for the source, Permit No. 95120085, issued June 8, 2015. In particular, the affected units will continue to be subject to federal National Emission Standards for Hazardous Air Pollutants (NESHAP) for Ethylene Oxide Emissions from Sterilization Facilities, 40 CFR 63 Subpart O.

### 3. Non-applicability Provisions

Page 2

This permit is issued based on this project not constituting a major modification for purposes of the state rules for Major Stationary Sources Construction and Modification (MSSCAM), 35 IAC Part 203. This is because this project is an emission reduction project that will reduce emissions of volatile organic material.

4. Good Air Pollution Control Practices

At all times, the Permittee shall maintain and operate the affected units and associated air pollution control systems in a manner consistent with good air pollution control practices for minimizing emissions.

5. Notification

The Permittee shall notify the Illinois EPA within 30 days after completion of this project. This notification shall include the date that the backvent on each affected unit is first controlled.

6. Testing

- a. Within 180 days of completion of this project, for the affected units, the Permittee shall perform performance testing in accordance with 40 CFR 63.365 and 63.7. The Permittee shall submit applicable notifications and reports for this testing as required by 40 CFR 63.7, 63.360, 63.365 and 63.366.
- b. The following USEPA methods and procedures shall be used for testing, unless another USEPA method is approved by the Illinois EPA:
 

Flowrate	Method 2, 2A, 2B, 2C or 2D
Oxygen (O <sub>2</sub> )/Carbon Dioxide (CO <sub>2</sub> )	Method 3A or 3B
Moisture	Method 4 or 320
Ethylene Oxide/Propylene Oxide	Method 18 or 320
- c. The Permittee shall submit a written test plan to the Illinois EPA for this testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 30 days prior to the actual date of testing and include the following information as a minimum:
  - i. A description of the planned test procedures.
  - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means or manner by which the operating parameters for the emission unit and any control equipment will be determined.

Page 3

- iv. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations.
  - v. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.
- d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.
- e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized but no later than 60 days after completion of sampling. The Final Report shall include as a minimum:
- i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.
  - ii. A summary of results, e.g., VOM emissions, pounds.
  - iii. A detailed description of operating conditions of the emission unit(s) during testing, including:
    - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
    - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
  - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - vi. Conclusions.
- f. The Permittee shall retain copies of emission test reports for at least three years beyond the date that an emission test is superseded by a more recent test.

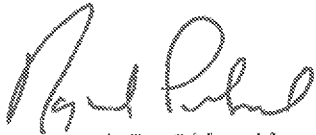
## 7. Authorization to Operate

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The Permittee may operate the affected units with backvents ducted to the existing control systems pursuant to this construction permit until the CAAPP permit for the source is revised to address this project. This condition supersedes Standard Condition 6.

Please note that the Illinois EPA has not acted in this permit on Sterigenic's request for enforceable limits on the operation and emissions of its Willowbrook facilities so that this source is not a major source under relevant air pollution control regulations. The Illinois EPA is processing that request as a separate application.

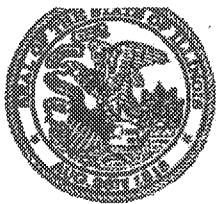
If you have any questions on this permit, please contact Daniel Rowell at 217/558-4368.



Raymond E. Pilapil  
Manager, Permit Section  
Bureau of Air

REP:DER:jlp





STATE OF ILLINOIS  
 ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF AIR POLLUTION CONTROL  
 P. O. BOX 19506  
 SPRINGFIELD, ILLINOIS 62794-9506

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**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

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July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
  2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
  3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
  4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
    - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
    - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
    - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
    - d. to obtain and remove samples of any discharge or emission of pollutants, and
    - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
  5. The issuance of this permit:
    - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
    - b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,
    - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
    - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and
-

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
  - a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
- 7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
  - a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

**TEST PROTOCOL FOR  
AIR POLLUTION SOURCE TESTING  
OF AN ETHYLENE OXIDE EMISSION-CONTROL SYSTEM  
OPERATED BY STERIGENICS US, LLC.  
AT ITS WILLOWBROOK I, ILLINOIS FACILITY**

Submitted to:

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
1021 North Grand Avenue East  
Springfield, Illinois 62794**

Submitted by:

**STERIGENICS US, LLC.  
7775 South Quincy Street  
Willowbrook, Illinois 60521**

**I.D. Number 043110AAC**

Prepared by:

**ECSI, INC.  
PO Box 1498  
San Clemente, California 92674-1498**

Prepared on:

**August 24, 2018**

*ECSi*

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### TEST DATE

September 20-21, 2018

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*ECSI*

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## 1.0 INTRODUCTION

ECSI, Inc. proposes to conduct air pollution source testing of the ethylene oxide (EtO) emission control system operated by Sterigenics US, LLC. at their Willowbrook I facility, located at 7775 S. Quincy Street. The device to be tested is the two stage AAT Safe Cell packed tower scrubber/dry bed reactor emission-control system, which is used to control emissions from fourteen sterilizer backvents and three aeration rooms. The purpose of the testing program will be to demonstrate compliance with backvent emission control requirements and the conditions established in the Air Quality Permit granted to Sterigenics by the Illinois Environmental Protection Agency (IEPA).

We have specialized exclusively in the performance of ethylene oxide source testing and leak testing since 1992, and are the nationally recognized expert in the field. When the current ethylene oxide emissions regulations were being implemented, we worked closely with the California Air Resources Board (CARB) and USEPA to help develop the currently used testing methodology.

## 2.0 EQUIPMENT

At Willowbrook I, sterilizer backvent emissions are controlled by:

- One two-stage Advanced Air Technologies Safe Cell emission-control system, comprised of a packed-tower chemical scrubber (SC1), equipped with a packed reaction/interface column, a scrubber fluid recirculation system, and a scrubber fluid reaction/storage tank, and a dry bed reactor/scrubber (SC2), comprised of a bank of solid-bed reaction vessels, connected in parallel, installed downstream of SC1 and upstream of a dedicated blower exhaust system.

### 3.0 TESTING

EtO source testing will be conducted in accordance with the procedures outlined in USEPA CFR40, Part 63.365, using USEPA Method 18 as specified. EtO emissions monitoring will be conducted simultaneously at the inlet and outlet of the Safe Cell System (the inlet of SC1 and the outlet of SC2) during the entire duration of the backvent phase of one of the fourteen sterilizers. A total of three backvent-phase test runs will be performed.

During the backvent phase, EtO emissions at the inlet and the outlet of the Safe Cell System will be determined using direct source sample injection into a gas chromatograph (GC). All testing will be conducted during normal process load conditions. All backvent testing will be performed with freshly sterilized product in the sterilizer. The testing program will be conducted in accordance with the procedures outlined in the following sections.

#### 4.0 RULE/COMPLIANCE REQUIREMENTS

The EtO gas-sterilization system at the Willowbrook I facility is being tested to demonstrate compliance with EPA requirements, as specified in the IEPA Air Quality Permit. The following requirements must be met:

- The sterilizer backvent phase emissions must be vented to control equipment with an EtO emission-reduction efficiency of at least 99 % by weight.

Testing is required to demonstrate compliance with these requirements. Source testing of the emission-control system is required initially, and may be required periodically thereafter.

## 5.0 TEST METHOD REFERENCE

### 5.1 INTRODUCTION

EtO source testing will be conducted in accordance with the procedures outlined in USEPA CFR40, Part 63.365, using USEPA Method 18 as specified. EtO emissions monitoring will be conducted simultaneously at the inlet and outlet of the Safe Cell System during the entire duration of the backvent phase of one of the fourteen sterilizers. A total of three backvent-phase test runs will be performed.

During the backvent phase, EtO emissions at the inlet and the outlet of the Safe Cell System will be determined using direct source sample injection into a gas chromatograph (GC). All testing will be conducted during normal process load conditions. All backvent testing will be performed with freshly sterilized product in the sterilizer. The testing program will be conducted in accordance with the procedures outlined in the following sections.

Operation and documentation of process conditions will be performed by personnel from Sterigenics, Inc. using existing monitoring instruments installed by the manufacturer on the equipment to be tested. In accordance with the procedures established in USEPA CFR40, Part 63, Subpart O, scrubber liquor level will be recorded.

### 5.2 VOLUMETRIC FLOW MEASUREMENT

Exhaust gas flow at the outlet of SC2 will be determined by 40 CFR 60, Appendix A, Method 2C, using a standard pitot tube and an inclined-oil manometer. Sampling ports will be located in accordance with 40 CFR 60, Appendix A, Method 1. The test ports will be located far enough from any flow disturbances to permit accurate flow measurement.

Temperature measurements will be obtained from a type K thermocouple and thermometer attached to the sampling probe. Exhaust gas composition will be assumed to be >99% ambient air. Water vapor will be negligible and, based on previous test data, a default ambient value of 3 percent will be used for determination of exhaust gas composition and flow calculations.

### 5.3 CONTROL EFFICIENCY AND MASS EMISSIONS MEASUREMENT

The EtO concentration at the inlet and outlet of the Safe Cell System will be measured simultaneously following the procedures delineated in USEPA CFR40, Part 63.365. During backvent, vented gas will be analyzed by an SRI, Model 8610, portable gas chromatograph (GC), equipped with the following: dual, heated sample loops and injectors; dual columns; and dual detectors. A flame ionization detector (FID) will be used to quantify emissions at the emission-control device inlet, and a photoionization detector (PID) will be used to quantify emissions at the emission-control device outlet.

### 5.4 SAMPLE TRANSPORT

Source gas will be pumped to the GC at approximately 500-1000 cubic centimeters per minute (cc/min) from the sampling ports through two lengths of Teflon® sample line, each with a nominal volume of approximately 75 cubic centimeters (cc) and an outer diameter of 0.25 inch. At the outlet of SC2 the sampling ports will be located in the exhaust stack.

### 5.5 GC INJECTION

Source-gas samples will then be injected into the GC which will be equipped with two heated sampling loops, each containing a volume of approximately 2cc and maintained at 100 degrees Celsius (C). Injections will occur at approximately one-minute intervals during the sterilization chamber backvent phase. Helium will be the carrier gas for both FID and PID.

### 5.6 GC CONDITIONS

The packed columns for the GC will both be operated at 85 degrees C. The columns will be stainless steel, 6 feet long, 0.125 inch outer diameter, packed with 1 percent SP-1000 on 60/80 mesh Carbopack B.

Any unused sample gas will be vented from the GC system back to the inlet of the scrubber.

### 5.7 CALIBRATION STANDARDS

The FID used at the inlet will be calibrated for part-per-million-by-volume (ppmv)-level analyses using gas proportions similar to the following:

- 1) 100 ppmv EtO, balance nitrogen
- 2) 50 ppmv EtO, balance nitrogen (audit gas)
- 3) 10 ppmv EtO, balance nitrogen
- 4) 1 ppmv EtO, balance nitrogen

The PID used at the outlet will be calibrated for ppmv-level analyses using gas proportions similar to the following:

- 1) 100 ppmv EtO, balance nitrogen
- 2) 50 ppmv EtO, balance nitrogen (audit gas)
- 3) 10 ppmv EtO, balance nitrogen
- 4) 1 ppmv EtO, balance nitrogen

Each of these calibration standards will be in a separate, certified manufacturer's cylinder. Copies of the calibration gas laboratory certificates will be included with the final report.

## 5.8 SAMPLING DURATION

Backvent EtO measurements will be taken for the entire duration of the backvent phase, which will be 15 minutes. This will encompass a total sampling duration of 15 minutes for each backvent phase test run.

## 5.9 CONTROL-EFFICIENCY/MASS-EMISSIONS CALCULATIONS

Control efficiency of EtO will be calculated for the backvent phase. Control efficiency will be calculated for each data point which will be produced at each injection interval. The time-weighted-average (TWA) EtO control efficiency will be calculated using these results. Results of the control-efficiency testing will be summarized in the final report.

Mass emissions of EtO will be calculated using the following equation:

$$\text{MassRate} = (\text{VolFlow})(\text{MolWt})(\text{ppmv EtO}/10^6)/(\text{MolVol})$$

Where:

MassRate = EtO mass flow rate, pounds per minute

VolFlow = Corrected volumetric flow rate, standard cubic feet per minute at 68 degrees F

MolWt = 44.05 pounds EtO per pound mole  
ppmv EtO = EtO concentration, parts per million by volume  
 $10^6 =$  Conversion factor, ppmv per "cubic foot per cubic foot"  
MolVol = 385.32 cubic feet per pound mole at one atmosphere and 68 degrees F

Mass emissions of EtO will be calculated for backvent. The results will be summarized in the final report.

## 6.0 TEST SCENARIO

Backvent testing will be performed during normal process load conditions, with freshly sterilized product in the sterilizer. Three test runs will be conducted in series to verify the performance of the emission-control system. The testing schedule will be as follows:

- Equipment setup and gas chromatograph calibration.
- Backvent Test Run #1 is performed with freshly sterilized product in one of the fourteen sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Backvent Test Run #2 is performed with freshly sterilized product in one of the fourteen sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Backvent Test Run #3 is performed with freshly sterilized product in one of the fourteen sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Post-calibration check performed and equipment breakdown.

## 7.0 QA/QC

### 7.1 FIELD TESTING QUALITY ASSURANCE

At the beginning of the test, the sampling system will be leak checked at a vacuum of 15 inches of mercury. The sampling system will be considered leak free when the flow indicated by the rotameters falls to zero.

At the beginning of the test, a system blank will be analyzed to ensure that the sampling system is free of EtO. Ambient air will be introduced at the end of the heated sampling line and drawn through the sampling system line to the GC for analysis. The resulting chromatogram also will provide a background level for non-EtO components (i.e. ambient air, carbon dioxide, water vapor) which are present in the source gas stream due to the ambient dilution air which is drawn into the emission-control device. This chromatogram, designated AMB, will be included with the calibration data in the final report.

### 7.2 CALIBRATION PROCEDURES

The GC system will be calibrated at the beginning and conclusion of each day's testing. Using the Peaksimple II analytical software, a point-to-point calibration curve will be constructed for each detector. A gas cylinder of similar composition as the calibration gases, but certified by a separate supplier, will be used to verify calibration gas composition and GC performance.

All calibration gases and support gases used will be of the highest purity and quality available. A copy of the laboratory certification for each calibration gas will be included in the final report.

## 8.0 FINAL TEST REPORT DESCRIPTION

The test results will be summarized in a written report. This report will be submitted to the IEPA no later than sixty days after the conclusion of the field testing. It will include results for EtO control efficiency of the emission-control device and mass emissions of EtO to the atmosphere from the emission-control device outlet. The report will contain:

- Summary tables with comparisons of the test results to rule limits;
- Copies of all intermediate data tables and calculation worksheets;
- Copies of all GC chromatograms from calibration runs and sample injections; and
- Laboratory calibration certificates for all calibration and audit gases and all applicable measurement instruments such as pitot tubes and thermocouples.

**TEST PROTOCOL FOR  
AIR POLLUTION SOURCE TESTING  
OF AN ETHYLENE OXIDE EMISSION-CONTROL SYSTEM  
OPERATED BY STERIGENICS US, LLC.  
AT ITS WILLOWBROOK II, ILLINOIS FACILITY**

Submitted to:

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
1021 North Grand Avenue East  
Springfield, Illinois 62794**

Submitted by:

**STERIGENICS US, LLC.  
830 Midway Drive  
Willowbrook, Illinois 60521**

**I.D. Number 043110AAC**

Prepared by:

**ECSI, INC.  
PO Box 1498  
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Prepared on:

**August 24, 2018**

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## CONTACT SUMMARY

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email: [pkrett@sterigenics.com](mailto:pkrett@sterigenics.com)

### TEST DATE

September 20-21, 2018

### REGULATORY AGENCY

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7.0 QA/QC	10
7.1 Field Testing Quality Assurance	10
7.2 Calibration Procedures	10
8.0 FINAL TEST REPORT DESCRIPTION	11

## 1.0 INTRODUCTION

ECSI, Inc. proposes to conduct air pollution source testing of the ethylene oxide (EtO) emission control system operated by Sterigenics US, LLC. at their Willowbrook II facility, located at 830 Midway Drive. The device to be tested is the two stage AAT Safe Cell packed tower scrubber/dry bed reactor emission-control system, which is used to control emissions from four sterilizer vacuum pumps, four sterilizer backvents and two aeration rooms. The purpose of the testing program will be to demonstrate compliance with backvent emission control requirements and the conditions established in the Air Quality Permit granted to Sterigenics by the Illinois Environmental Protection Agency (IEPA).

We have specialized exclusively in the performance of ethylene oxide source testing and leak testing since 1992, and are the nationally recognized expert in the field. When the current ethylene oxide emissions regulations were being implemented, we worked closely with the California Air Resources Board (CARB) and USEPA to help develop the currently used testing methodology.

## 2.0 EQUIPMENT

At Willowbrook I, sterilizer backvent emissions are controlled by:

- One two-stage Advanced Air Technologies Safe Cell emission-control system, comprised of a packed-tower chemical scrubber (SC1), equipped with a packed reaction/interface column, a scrubber fluid recirculation system, and a scrubber fluid reaction/storage tank, and a dry bed reactor/scrubber (SC2), comprised of a bank of solid-bed reaction vessels, connected in parallel, installed downstream of SC1 and upstream of a dedicated blower exhaust system.

### 3.0 TESTING

EtO source testing will be conducted in accordance with the procedures outlined in USEPA CFR40, Part 63.365, using USEPA Method 18 as specified. EtO emissions monitoring will be conducted simultaneously at the inlet and outlet of the Safe Cell System (the inlet of SC1 and the outlet of SC2) during the entire duration of the backvent phase of one of the four sterilizers. A total of three backvent-phase test runs will be performed.

During the backvent phase, EtO emissions at the inlet and the outlet of the Safe Cell System will be determined using direct source sample injection into a gas chromatograph (GC). All testing will be conducted during normal process load conditions. All backvent testing will be performed with freshly sterilized product in the sterilizer. The testing program will be conducted in accordance with the procedures outlined in the following sections.

#### 4.0 RULE/COMPLIANCE REQUIREMENTS

The EtO gas-sterilization system at the Willowbrook I facility is being tested to demonstrate compliance with EPA requirements, as specified in the IEPA Air Quality Permit. The following requirements must be met:

- The sterilizer backvent phase emissions must be vented to control equipment with an EtO emission-reduction efficiency of at least 99 % by weight.

Testing is required to demonstrate compliance with these requirements. Source testing of the emission-control system is required initially, and may be required periodically thereafter.

## 5.0 TEST METHOD REFERENCE

### 5.1 INTRODUCTION

EtO source testing will be conducted in accordance with the procedures outlined in USEPA CFR40, Part 63.365, using USEPA Method 18 as specified. EtO emissions monitoring will be conducted simultaneously at the inlet and outlet of the Safe Cell System during the entire duration of the backvent phase of one of the four sterilizers. A total of three backvent-phase test runs will be performed.

During the backvent phase, EtO emissions at the inlet and the outlet of the Safe Cell System will be determined using direct source sample injection into a gas chromatograph (GC). All testing will be conducted during normal process load conditions. All backvent testing will be performed with freshly sterilized product in the sterilizer. The testing program will be conducted in accordance with the procedures outlined in the following sections.

Operation and documentation of process conditions will be performed by personnel from Sterigenics, Inc. using existing monitoring instruments installed by the manufacturer on the equipment to be tested. In accordance with the procedures established in USEPA CFR40, Part 63, Subpart O, scrubber liquor level will be recorded.

### 5.2 VOLUMETRIC FLOW MEASUREMENT

Exhaust gas flow at the outlet of SC2 will be determined by 40 CFR 60, Appendix A, Method 2C, using a standard pitot tube and an inclined-oil manometer. Sampling ports will be located in accordance with 40 CFR 60, Appendix A, Method 1. The test ports will be located far enough from any flow disturbances to permit accurate flow measurement.

Temperature measurements will be obtained from a type K thermocouple and thermometer attached to the sampling probe. Exhaust gas composition will be assumed to be >99% ambient air. Water vapor will be negligible and, based on previous test data, a default ambient value of 3 percent will be used for determination of exhaust gas composition and flow calculations.

### 5.3 CONTROL EFFICIENCY AND MASS EMISSIONS MEASUREMENT

The EtO concentration at the inlet and outlet of the Safe Cell System will be measured simultaneously following the procedures delineated in USEPA CFR40, Part 63.365. During backvent, vented gas will be analyzed by an SRI, Model 8610, portable gas chromatograph (GC), equipped with the following: dual, heated sample loops and injectors; dual columns; and dual detectors. A flame ionization detector (FID) will be used to quantify emissions at the emission-control device inlet, and a photoionization detector (PID) will be used to quantify emissions at the emission-control device outlet.

### 5.4 SAMPLE TRANSPORT

Source gas will be pumped to the GC at approximately 500-1000 cubic centimeters per minute (cc/min) from the sampling ports through two lengths of Teflon® sample line, each with a nominal volume of approximately 75 cubic centimeters (cc) and an outer diameter of 0.25 inch. At the outlet of SC2 the sampling ports will be located in the exhaust stack.

### 5.5 GC INJECTION

Source-gas samples will then be injected into the GC which will be equipped with two heated sampling loops, each containing a volume of approximately 2cc and maintained at 100 degrees Celsius (C). Injections will occur at approximately one-minute intervals during the sterilization chamber backvent phase. Helium will be the carrier gas for both FID and PID.

### 5.6 GC CONDITIONS

The packed columns for the GC will both be operated at 85 degrees C. The columns will be stainless steel, 6 feet long, 0.125 inch outer diameter, packed with 1 percent SP-1000 on 60/80 mesh Carbopack B.

Any unused sample gas will be vented from the GC system back to the inlet of the scrubber.

### 5.7 CALIBRATION STANDARDS

The FID used at the inlet will be calibrated for part-per-million-by-volume (ppmv)-level analyses using gas proportions similar to the following:

- 1) 100 ppmv EtO, balance nitrogen
- 2) 50 ppmv EtO, balance nitrogen (audit gas)
- 3) 10 ppmv EtO, balance nitrogen
- 4) 1 ppmv EtO, balance nitrogen

The PID used at the outlet will be calibrated for ppmv-level analyses using gas proportions similar to the following:

- 1) 100 ppmv EtO, balance nitrogen
- 2) 50 ppmv EtO, balance nitrogen (audit gas)
- 3) 10 ppmv EtO, balance nitrogen
- 4) 1 ppmv EtO, balance nitrogen

Each of these calibration standards will be in a separate, certified manufacturer's cylinder. Copies of the calibration gas laboratory certificates will be included with the final report.

## 5.8 SAMPLING DURATION

Backvent EtO measurements will be taken for the entire duration of the backvent phase, which will be 15 minutes. This will encompass a total sampling duration of 15 minutes for each backvent phase test run.

## 5.9 CONTROL-EFFICIENCY/MASS-EMISSIONS CALCULATIONS

Control efficiency of EtO will be calculated for the backvent phase. Control efficiency will be calculated for each data point which will be produced at each injection interval. The time-weighted-average (TWA) EtO control efficiency will be calculated using these results. Results of the control-efficiency testing will be summarized in the final report.

Mass emissions of EtO will be calculated using the following equation:

$$\text{MassRate} = (\text{VolFlow})(\text{MolWt})(\text{ppmv EtO}/10^6)/(\text{MolVol})$$

Where:

MassRate = EtO mass flow rate, pounds per minute

VolFlow = Corrected volumetric flow rate, standard cubic feet per minute at 68 degrees F

MolWt = 44.05 pounds EtO per pound mole  
ppmv EtO = EtO concentration, parts per million by volume  
 $10^6 =$  Conversion factor, ppmv per "cubic foot per cubic foot"  
MolVol = 385.32 cubic feet per pound mole at one atmosphere and 68 degrees F

Mass emissions of EtO will be calculated for backvent. The results will be summarized in the final report.

## 6.0 TEST SCENARIO

Backvent testing will be performed during normal process load conditions, with freshly sterilized product in the sterilizer. Three test runs will be conducted in series to verify the performance of the emission-control system. The testing schedule will be as follows:

- Equipment setup and gas chromatograph calibration.
- Backvent Test Run #1 is performed with freshly sterilized product in one of the four sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Backvent Test Run #2 is performed with freshly sterilized product in one of the four sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Backvent Test Run #3 is performed with freshly sterilized product in one of the four sterilizers. Sampling is performed at the inlet and outlet of the Safe Cell System.
- Post-calibration check performed and equipment breakdown.

## 7.0 QA/QC

### 7.1 FIELD TESTING QUALITY ASSURANCE

At the beginning of the test, the sampling system will be leak checked at a vacuum of 15 inches of mercury. The sampling system will be considered leak free when the flow indicated by the rotameters falls to zero.

At the beginning of the test, a system blank will be analyzed to ensure that the sampling system is free of EtO. Ambient air will be introduced at the end of the heated sampling line and drawn through the sampling system line to the GC for analysis. The resulting chromatogram also will provide a background level for non-EtO components (i.e. ambient air, carbon dioxide, water vapor) which are present in the source gas stream due to the ambient dilution air which is drawn into the emission-control device. This chromatogram, designated AMB, will be included with the calibration data in the final report.

### 7.2 CALIBRATION PROCEDURES

The GC system will be calibrated at the beginning and conclusion of each day's testing. Using the Peaksimple II analytical software, a point-to-point calibration curve will be constructed for each detector. A gas cylinder of similar composition as the calibration gases, but certified by a separate supplier, will be used to verify calibration gas composition and GC performance.

All calibration gases and support gases used will be of the highest purity and quality available. A copy of the laboratory certification for each calibration gas will be included in the final report.

## 8.0 FINAL TEST REPORT DESCRIPTION

The test results will be summarized in a written report. This report will be submitted to the IEPA no later than sixty days after the conclusion of the field testing. It will include results for EtO control efficiency of the emission-control device and mass emissions of EtO to the atmosphere from the emission-control device outlet. The report will contain:

- Summary tables with comparisons of the test results to rule limits;
- Copies of all intermediate data tables and calculation worksheets;
- Copies of all GC chromatograms from calibration runs and sample injections; and
- Laboratory calibration certificates for all calibration and audit gases and all applicable measurement instruments such as pitot tubes and thermocouples.



September 7, 2018

Sent via email

Julie Armitage  
Illinois Environmental Protection Agency  
Bureau of Air  
1021 North Grand Avenue East  
Springfield, Illinois 62702

Kevin Mattison  
Illinois Environmental Protection Agency  
Bureau of Air / Compliance Section  
9511 Harrison Street  
Des Plaines, IL 60016

**Re: Waiver Request of Construction Permit Test Notification Requirements, and Additional Test Protocol Information for Sterigenics Willowbrook I and II Facilities  
Facility LD. No: 043110AAC**

Ms. Armitage and Mr. Mattison:

In our recent conversations, we discussed our shared interest in conducting performance testing of the Willowbrook facilities' control equipment as quickly as possible after recently tying in our sterilization chamber backvents into each facility's existing emission control equipment. This letter formally requests IEPA's waiver of the 30 and 5 day performance test notification requirements found in the project's Construction Permit (Application No. 18060020), at Conditions 6 c. and 6 d. If the waiver of notification requirements is granted, then we would plan to commence performance testing beginning in the morning on Saturday, September 8 at approximately 7:00am at Willowbrook I, 7775 Quincy Street. Testing at Willowbrook II will commence at approximately noon.

This letter also provides additional information regarding the previously submitted test protocol we submitted in our last letter. Based on guidance from Mr. Mattison, this information will serve to provide further details about the planned test procedures and how test results are to be generated. With this additional information, we also request that IEPA grant its approval of the updated test protocol.

Please contact me to further discuss this matter. You can reach me at 630-928-1771 or email: [kwagner@sterigenics.com](mailto:kwagner@sterigenics.com).

Regards,

A handwritten signature in black ink, appearing to read "Kevin Wagner".

Kevin Wagner  
Director, EH&S

Enclosures:

Sterigenics International LLC  
2015 Spring Road, Suite 650 • Oak Brook, IL 60523  
Tel 630.928.1700 • Fax 630.928.1701 • [www.sterigenics.com](http://www.sterigenics.com)



## **Test Protocol Addendum for both Willowbrook I and Willowbrook II**

### **2.0 EQUIPMENT**

Process parameters for both AAT emission control devices will be measured prior to testing. One measurement of the scrubber would be representative of scrubber conditions throughout the testing. Based on the total volume of the scrubber liquor, it isn't anticipated that an appreciable change in liquor level or pH will occur over the course of testing. In accordance with the site's air permit the scrubber tank level will be measured along with the liquor pH.

### **3.0 TESTING**

Once a sterilization chamber cycle ends, our process requires the chamber door to be partially opened for 15 minutes which vents the EO in the chamber to reduce levels in the chamber and exposure to employees. The 15-minute duration ensures the highest concentration of EO is removed from the chamber prior to unloading the product. During this venting, EO exhausts thru the backvent and to the AAT scrubber. In accordance with our procedures, workers are not allowed to enter or unload the chamber until the 15-minute time period has passed. Once the 15-minutes has passed, the product is unloaded to the aeration room.

The Willowbrook facility utilizes different sterilization cycles based on FDA validated cycles. The EO concentration in the chamber prior to the backvent phase can vary. Therefore, the higher ending concentrations will represent the highest amount of EO exhausted thru the backvents to the AAT scrubber.

In order to meet Condition 6 of the Construction Permit, each test run will be completed on the backvents using freshly sterilized product from one chamber for a 15-minute duration, for a total of three test runs at each facility. The emission testing will use chambers with higher ending EO concentrations for testing. Each test interval will test the first 15-minutes the backvent is opened and exhausted to the scrubber. Once the 15 minutes ends, product will be unloaded from the chamber and placed into the aeration rooms which are continuously vented to the same AAT scrubber throughout the test.

#### **Recording data**

Sterigenics will record process data during the performance testing to identify which chamber was utilized and the sterilization cycle number for each test. This process data will be summarized in a table which will be provided in the final report. In addition to the process data collection, Sterigenics will record pH and scrubber liquor level of the AAT scrubber prior to the test. This information will also be



furnished with the process data in the final report. Due to the AAT scrubber size and design, these parameters do not change significantly during the course of a day which exceeds the performance testing duration.

## **SECTION 5.0 TEST METHOD REFERENCE**

The protocol indicated the CO<sub>2</sub>/O<sub>2</sub> will not be measured, rather the stack will be assumed to be ambient air. The assumed molecular weight of the stack gas will be 29.

### **5.2 VOLUMETRIC FLOW MEASUREMENT**

Method 2C will be utilized to test volumetric flow. The sample port used for the Method 18 inlet and outlet will be used for Method 2C. Please see attached Figure 1 for a drawing of the test locations in accordance with USEPA Method 1 or 1a. The absence of cyclonic flow will be verified during the test program.

### **5.4 SAMPLE TRANSPORT**

In addition to the description of the sample transport in the protocol, the lines used for testing will be heated above 110°C. Source gas will be pumped to the GC with a response time of 5-10 seconds.

### **5.7 CALIBRATIONS**

Calibration will be performed in triplicate prior to and at the end of each test day. Limit of detection will be determined.

## **6.0 TEST SCENARIO**

As discussed above, backvent testing will be performed during normal process load conditions, with freshly sterilized product in the sterilization chambers. Three test runs will be conducted in series to verify the performance of the emission-control system.

Sterilization chamber cycles can range from 8 – 12 hours. Sterigenics will schedule three chambers to end the sterilization cycle to allow for the three test runs to run consecutively, however, due to the range in cycle time, it may be necessary to wait for the chamber cycle to end prior to beginning the subsequent testing.

The sample testing will begin at approximately 7:00 am on Saturday, September 8, 2018. The equipment will be set up Friday evening. Calibration of the chromatograph system will be completed prior to beginning the test at Willowbrook 1 and then again prior to beginning the test at Willowbrook 2.



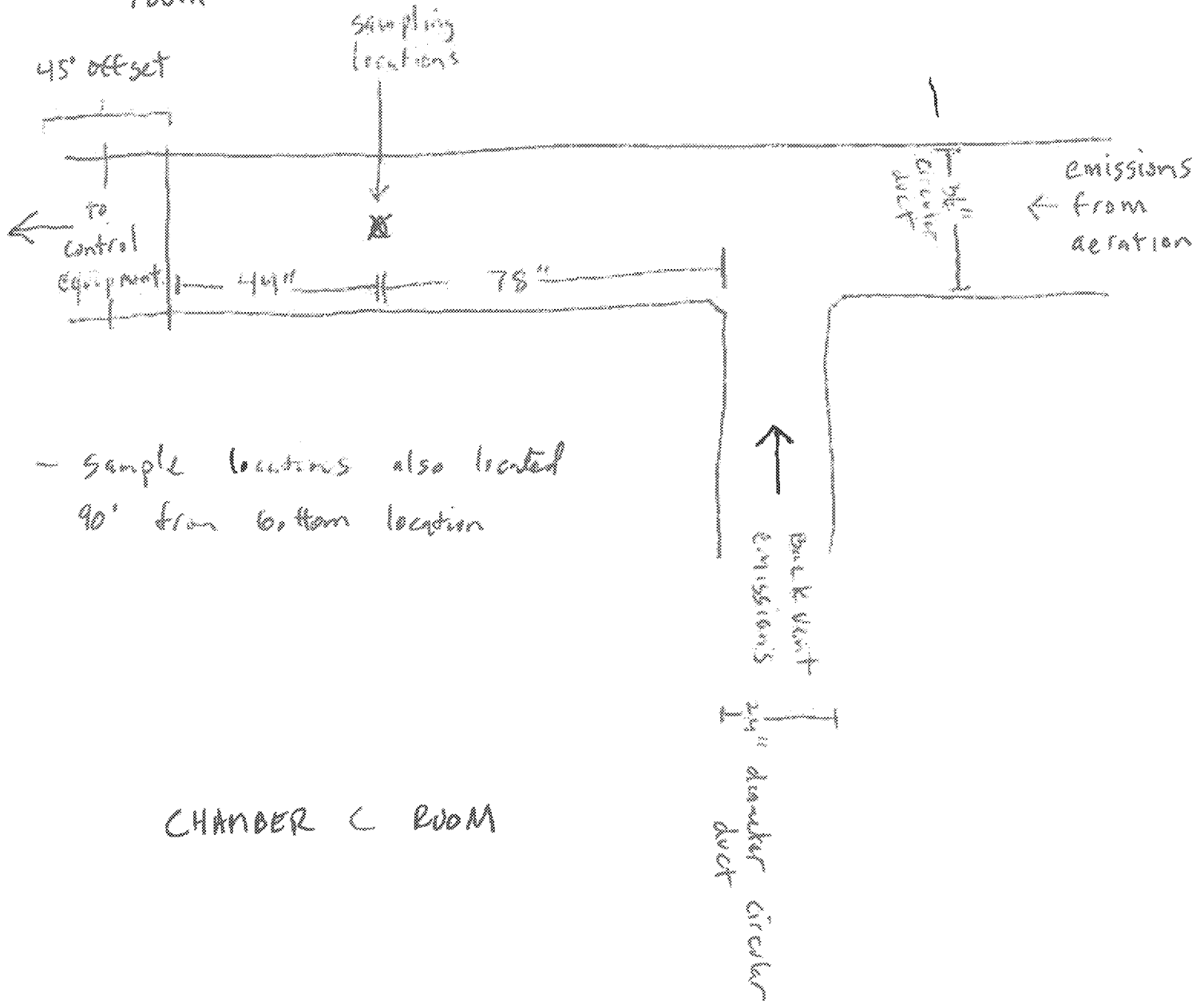
### Test Scenario Time Line

	Sequence for each facility	Method/Reference
	Sample port locations established	Method 1
	3-point calibration performed in triplicate.	Method 18
	Obtain meteorological data for sampling time. Conduct calculation based on Method 4.	Method 4
SAMPLE 1	Flow traverse of inlet and outlet conducted to establish measurement centroid, confirm absence of cyclonic flow.	Method 2
7:00 am	Chamber door opened, actuator switch activates backvent	N/A
	First sample initiated	Method 18
	Samples at inlet and outlet taken approximately every 1-minute for a total of 15-minutes	Method 18
	Flow monitoring sampled approximately every 1-minute.	
	Recovery study performed	Method 18
Each sample run will follow the same steps as sample 1		
End of 3 samples	Post calibration	

# WB I INLET TEST LOCATION

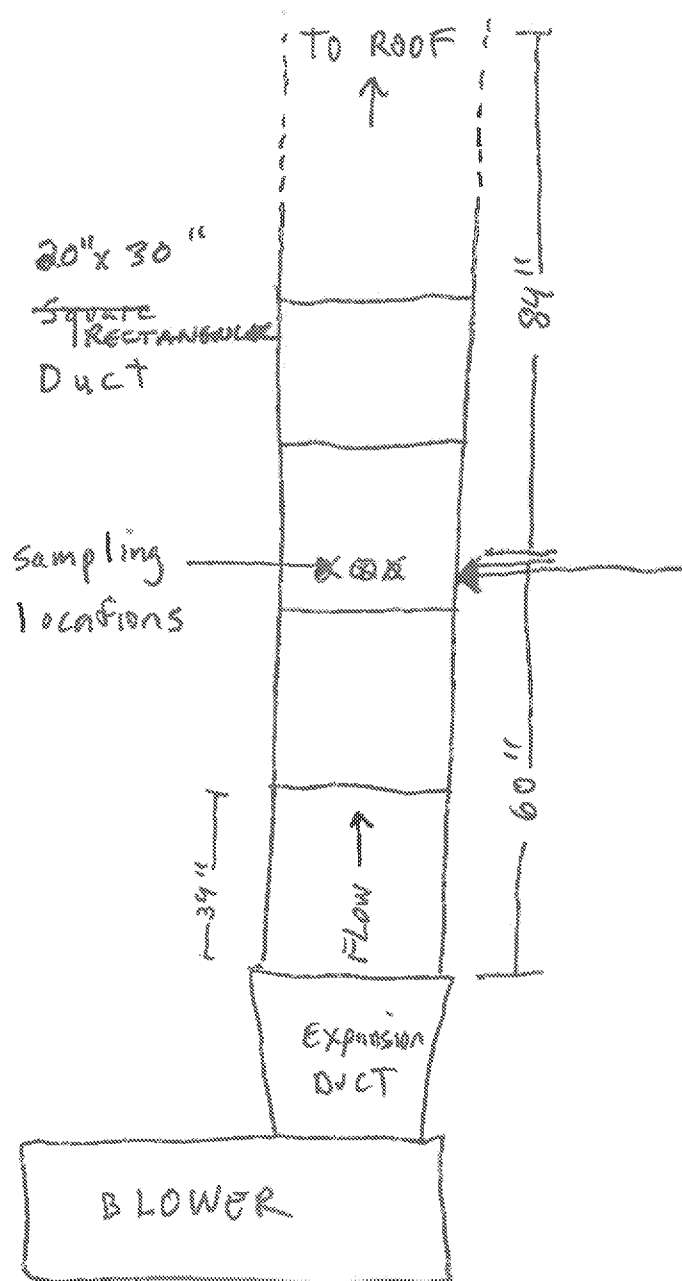
- view is looking above at ceiling of chamber C

room



WB I

## OUTLET TEST LOCATION



— Main stretch of ducting  
is 20" x 30" <sup>rectangular</sup> ~~square~~ duct

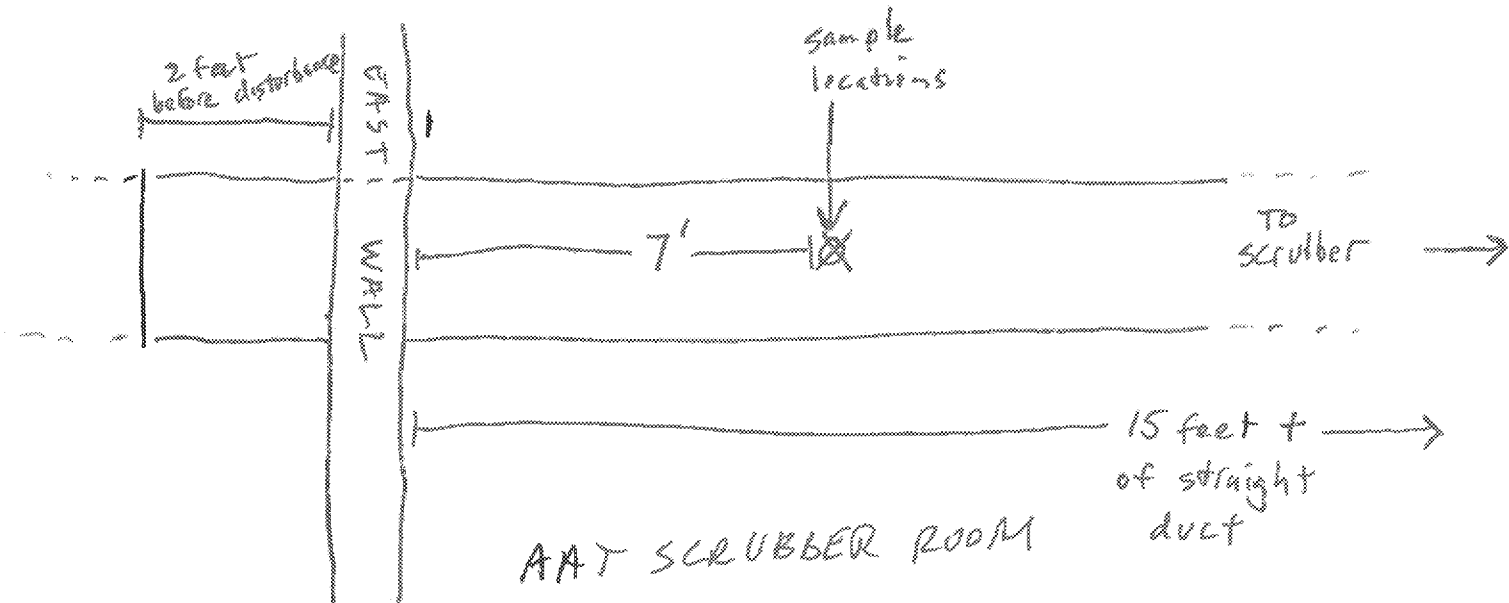
— Sample prints are located  
84" ~~±~~ below top-most disturbance  
and 60" above lowest disturbance

sample locations  
also on side  
of duct

AAT DRYBED ROOM

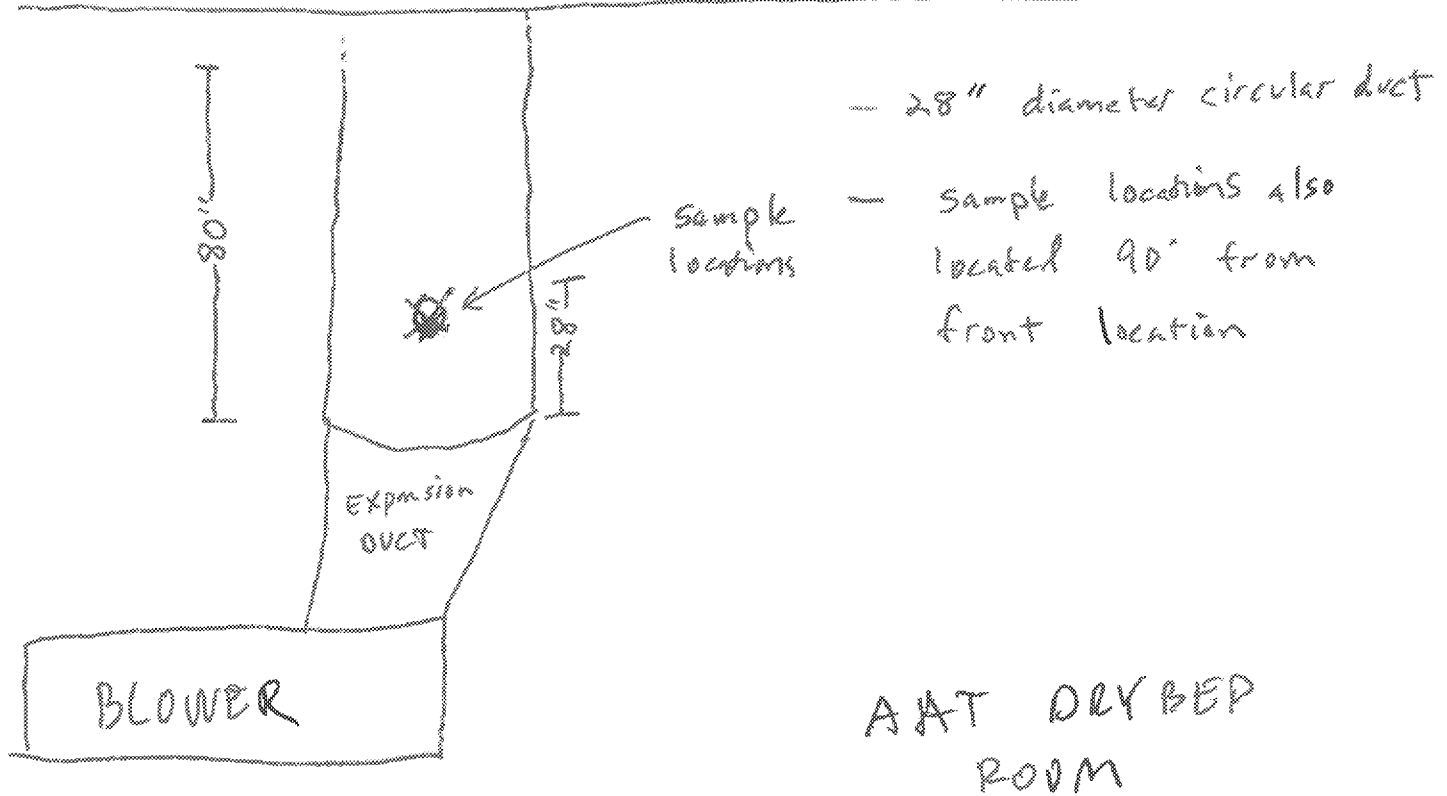
# WB II INLET TEST LOCATION

— View is looking up at ceiling of AAT Scrubber Room



— sample locations also located 90' from bottom location

# WB II OUTLET TEST LOCATION



\* Sample point will be located in straight run. Verified to meet Method prior to test.

**From:** "Armitage, Julie" <Julie.Armitage@Illinois.gov>  
**Date:** September 7, 2018 at 6:34:23 PM CDT  
**To:** "Hoffman, Kathy" <[REDACTED]>  
**Cc:** "Mattison, Kevin" <Kevin.Mattison@Illinois.gov>

By this email, at your request, and to facilitate the shared goal of expedited emissions testing, the Bureau of Air provides notice that it is waiving the timeframe for test plan submittal (30 days prior to testing – condition 6c) and the timeframe for notification of expected and actual test dates (30 and 5 days, respectively – condition 6d) under construction permit No. 18060020 issued June 26, 2018. Also, the Bureau provides notice that, after review and consultation with the USEPA, it is accepting the protocol received August 28, 2018, and supplemented September 7, 2018, conditioned upon the testing scheduled for September 8th, being performed in accordance with USEPA reference methods and supported by a detailed final report that evidences the validity of the test, adherence to reference methods, and compliance with all relevant permit terms.

Should you have comments or questions regarding this matter, pleased direct them to my attention or to that of Kevin Mattison of my staff who will be present for the September 8<sup>th</sup> testing.

State of Illinois - CONFIDENTIALITY NOTICE: The information contained in this communication is confidential, may be attorney-client privileged or attorney work product, may constitute inside information or internal deliberative staff communication, and is intended only for the use of the addressee. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you have received this communication in error, please notify the sender immediately by return e-mail and destroy this communication and all copies thereof, including all attachments. Receipt by an unintended recipient does not waive attorney-client privilege, attorney work product privilege, or any other exemption from disclosure.

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 10/29/2018 10:48:53 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: For Review // Draft Press Release: EPA Sets the Record Straight After Being Misrepresented in Press

Begin forwarded message:

**From:** "Stepp, Cathy" <[stepp.cathy@epa.gov](mailto:stepp.cathy@epa.gov)>  
**Date:** October 29, 2018 at 6:47:46 PM EDT  
**To:** "Konkus, John" <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)>  
**Cc:** "Thiede, Kurt" <[thiede.kurt@epa.gov](mailto:thiede.kurt@epa.gov)>, "Jackson, Ryan" <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>, "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** Re: For Review // Draft Press Release: EPA Sets the Record Straight After Being Misrepresented in Press

## Deliberative Process / Ex. 5

Far from sitting on our hands...

Sent from my iPhone

On Oct 29, 2018, at 4:51 PM, Konkus, John <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)> wrote:

Cathy and Kurt: We are planning on sending this shortly. Can you please review it and provide feedback ASAP? Thanks.

DRAFT

## Deliberative Process / Ex. 5

# **Deliberative Process / Ex. 5**

###



## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 2/8/2019 7:37:12 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: ACTION - PRESS - for review . Deadline today  
**Attachments:** Intercept.Draft EtO portion of answer for review.docx; ATT00001.htm

Begin forwarded message:

**From:** "Davis, Alison" <Davis.Alison@epa.gov>  
**Date:** February 8, 2019 at 2:35:19 PM EST  
**To:** "Woods, Clint" <woods.clint@epa.gov>  
**Cc:** "Koerber, Mike" <Koerber.Mike@epa.gov>, "Rimer, Kelly" <Rimer.Kelly@epa.gov>, "DeLuca, Isabel" <DeLuca.Isabel@epa.gov>  
**Subject:** ACTION - PRESS - for review . Deadline today

Hi Clint,

Here are questions we received from the Intercept. We are addressing the ones about EtO, and

## Deliberative Process / Ex. 5

Here is the incoming. Draft answer attached

Below are some questions related to a story I'm writing about air pollution. Can you please get back to me by the end of the day this coming Friday, 2/8?

- 1) A recent report by a CBS News affiliate in Chicago included allegations that the EPA has known Sterigenics was emitting ethylene oxide at unsafe levels for years. Do you want to respond to that or comment?
- 2) I note in my story that some in the Willowbrook area felt that the EPA didn't respond quickly enough to their ethylene oxide problem. I did see your [October press release](#) that address some of these criticisms. Just wanted to see if you wanted to add anything to that.
- 3) That press release notes that you requested that ATSDR evaluate the potential health impacts of the ethylene oxide emitted from the Sterigenics plant in Willowbrook. Did you ask ATSDR for reports for the other places where ethylene oxide is emitted at similar or higher levels?

If so, which ones?

If not, why not?

4) As soon as the NATA report was published in August of 2018, you notified the residents of Willowbrook about the risk they faced. Did you do this for any other community that had an elevated risk of cancer due to ethylene oxide or for any other community that had an elevated risk of cancer due to other tract pollutants?

If so, which ones and when?

If not, why not?

5) Did you create webpages about ethylene oxide contamination in places that were identified in the NATA report as having cancer risks above 100 in a million?

If so, which ones and when?

If not, why not?

The reporter added a question:

6) Why did EPA single out the Sterigenics plant in Willowbrook for certain efforts performed before the NATA report was released?

7) The chief of the EPA's office of Air and Radiation, William Wehrum, went to speak with the residents of Willowbrook in November. Did Mr. Wehrum meet and speak with residents of any of the other communities with cancer risks from ethylene oxide that were above 100?

If so, which ones and when?

If not, why not?

8) Wilma Subra, an environmental consultant in Louisiana, said that the EPA has not asked ATSDR to evaluate the risk from ethylene oxide in communities in Louisiana that have an elevated risk of cancer or do air monitoring in those communities.

Is this true?

If not, in what other communities is EPA doing monitoring for ethylene oxide emissions? And for what other communities have they asked ATSDR to write reports on the threat from ethylene oxide emissions?

9) Besides the Sterigenics plant in Willowbrook, has the agency worked to help install pollution controls at any other facilities identified in the NATA report as responsible for ethylene oxide emissions that resulted in an estimated cancer risk above 100?

If so, which ones? And when?

If not, why not?

10) Did any EPA staff visit St. John to discuss the risk from chloroprene?

If so, who and when?

If not, why not?

11) The residents of St. John told me they didn't learn about the elevated cancer risk from chloroprene in their community until July of 2016 even though the NATA report identifying that risk was published in December of 2015. And when they learned of it, it was from an independent environmental consultant.

Why didn't you directly inform the residents of this risk as soon as you knew of it?

12) When did David Dunlap, the head of EPA's Office of Research and Development, begin work at the agency?

13) Mr. Dunlap recused himself from working on the IRIS assessment of formaldehyde in a letter was dated December 19, 2018. That same day, IRIS issued an agenda for upcoming activities that omitted formaldehyde, which had been on previous agendas. The timing — and the fact that Dunlap's letter recused himself from future work on the chemical but didn't address any work he might have done up to that point — seems to suggest that he may have had a role in removing formaldehyde from IRIS's agenda. Do you wish to comment?

14) Last year, for the second time, representatives of the company Denka asked IRIS to reconsider its assessment of chloroprene. What is the status of that request?

## Message

**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 12/27/2018 2:19:49 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Re: Bill's calendar 12/10-12/21

Ok sounds like a plan

On Dec 27, 2018, at 8:47 AM, Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)> wrote:

Josh,

Thanks. I'll be around here all day. I don't know if Clint was planning to be in today, but, if so, he and I can confer and see if we can figure out what's going on as well.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Lewis, Josh  
**Sent:** Thursday, December 27, 2018 8:31 AM  
**To:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>  
**Subject:** Re: Bill's calendar 12/10-12/21

David,

I won't be in the office today. **Personal Matters / Ex. 6**

I'll keep an eye on the MATS package, though I still have no idea if the plans changed on the timing.

On Dec 27, 2018, at 7:26 AM, Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)> wrote:

Isabel,

For this entry

12/13/2016 12:30PM Call with citizen of Willowbrook, IL

you might consider “resident of Willowbrook, IL” instead.  
But I don’t feel that strongly about it.

Apart from that, this looks fine to me.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** DeLuca, Isabel  
**Sent:** Friday, December 21, 2018 2:29 PM  
**To:** Wehrum, Bill <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>; Millett, John <[Millett.John@epa.gov](mailto:Millett.John@epa.gov)>  
**Subject:** Bill's calendar 12/10-12/21

Hi all,

Below is Bill’s calendar for 12/10- 12/21. If you have any questions or concerns, please let me know.

12/10/2018	9:30AM	Staff briefings	EPA Headq
12/10/2018	4:00PM	Meeting with National Alliance of Forest Owners	EPA Headq
12/10/2018	5:00PM	Call with Sterigenics	EPA Headq
12/11/2018	9:00AM	Staff briefing	EPA Headq
12/11/2018	9:30PM	Meeting with AGC Chemicals Americas	EPA Headq
12/11/2018	10:00AM	Staff briefings	EPA Headq
12/11/2018	3:00PM	Meeting with National Rural Electric Cooperative Association	EPA Headq
12/11/2018	3:30PM	Staff briefings	EPA Headq
12/12/2018	9:00AM	Staff briefings	EPA Headq
12/13/2018	8:30AM	Staff briefing	EPA Headq
12/13/2018	9:30AM	Call with Senator Susan Collins	EPA Headq
12/13/2018	10:00AM	Meeting with Association of Equipment Manufacturers	EPA Headq
12/13/2018	10:30AM	Staff briefings	EPA Headq
12/13/2016	12:30PM	Call with citizen of Willowbrook, IL	EPA Headq
12/13/2018	1:00PM	Staff briefings	EPA Headq
12/14/2018	9:30AM	Staff briefing	EPA Headq
12/14/2018	10:00AM	Meeting with Waste Management and Republic Services	EPA Headq
12/14/2018	11:00AM	Staff briefings	EPA Headq
12/17/2018	10:00AM	Staff briefings	EPA Headq
12/17/2018	3:00PM	Meeting with Hess Corporation and Whiting Petroleum Corporation	EPA Headq

12/17/2018	4:00PM	Call with with Sterigenics	EPA Headq
12/17/2018	4:30PM	Staff briefing	EPA Headq
12/18/2018	9:00AM	Staff briefings	EPA Headq
12/18/2018	2:00PM	EPA Webinar: Update on Ethylene Oxide Monitoring in Willowbrook, IL	EPA Headq
12/18/2018	3:00PM	Staff briefings	EPA Headq
12/19/2019	9:00AM	Staff briefings	EPA Headq
12/19/2018	10:30AM	Interagency meeting	EPA Headq
12/19/2018	1:00PM	Staff briefings	EPA Headq
12/20/2018	8:30AM	Staff briefings	EPA Headq
12/20/2018	4:45PM	Call with Global Automakers	EPA Headq
12/21/2018	10:30AM	Staff briefings	EPA Headq

Many thanks,  
Isabel

Isabel DeLuca  
Office of Air and Radiation, US EPA  
(202) 343-9247

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 10/29/2018 10:29:09 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: For Review // Draft Press Release: EPA Sets the Record Straight After Being Misrepresented in Press

Begin forwarded message:

**From:** "Konkus, John" <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)>  
**Date:** October 29, 2018 at 5:51:56 PM EDT  
**To:** "Stepp, Cathy" <[stepp.cathy@epa.gov](mailto:stepp.cathy@epa.gov)>, "Thiede, Kurt" <[thiede.kurt@epa.gov](mailto:thiede.kurt@epa.gov)>  
**Cc:** "Jackson, Ryan" <[jackson.ryan@epa.gov](mailto:jackson.ryan@epa.gov)>, "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** For Review // Draft Press Release: EPA Sets the Record Straight After Being Misrepresented in Press

Cathy and Kurt: We are planning on sending this shortly. Can you please review it and provide feedback ASAP? Thanks.

DRAFT

**EPA Sets the Record Straight After Being Misrepresented in Press**

# Deliberative Process / Ex. 5

# **Deliberative Process / Ex. 5**

###

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 2/20/2019 4:51:10 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** FW: Latest Willowbrook table and maps  
**Attachments:** 021219 v1 Willowbrook EtO Master Data Table for Web.xlsx; Willowbrook EtO working slides Feb 12 2019.pptx

For 2:30. OAQPS should also be sending over some talking points for RA call at 5:15.

**From:** Koerber, Mike  
**Sent:** Tuesday, February 12, 2019 4:00 PM  
**To:** Lewis, Josh <Lewis.Josh@epa.gov>  
**Cc:** Woods, Clint <woods.Clint@epa.gov>  
**Subject:** FW: Latest Willowbrook table and maps

Josh – Please print a copy of the spreadsheet for Bill.

**Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Also, I'd like to get 30 minutes to talk with Bill and Clint over the next few days to discuss next steps on monitoring. We are only planning to sample through the end of the month and need to make decisions soon if we want to extend the monitoring.

Mike

**From:** Weinstock, Lewis  
**Sent:** Tuesday, February 12, 2019 3:17 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Chen, Xi <Chen.Xi@epa.gov>; McBrien, Jenia <McBrien.Jenia@epa.gov>; Noah, Greg <Noah.Greg@epa.gov>; Thurman, James <Thurman.James@epa.gov>  
**Subject:** Latest Willowbrook table and maps

Hi Mike:

Attached are the latest data for the Willowbrook study – thanks to Doris and Greg for the data review and to James for the wind roses. I used the webinar slide deck for the update so the file is all inclusive. The study's EtO averages to date are updated through January 17, 2019.

Please let us know if you have any questions. Do you want me to forward this information to the technical folks in Region 5 (Compher, Nwia) for their inspection?

Lewis Weinstock | Group Leader | Ambient Air Monitoring Group | Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Phone: 919-541-3661|

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 12/4/2018 7:20:45 PM  
**To:** Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Smith, Darcie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae3c2377efb42879b943db8796ddc05-Smith, Darcie]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]; Chen, Xi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb29e8e6f2064817a3a722f52e000f2b-Chen, Xi]; Cortelyou-Lee, Jan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=75b1eec7b16e46d5b9114935fc6a771e-JCORTELY]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** RE: Meeting re: Willowbrook samples  
**Attachments:** Initial Data - November 2018.pdf

FYI – I sent this summary table to OAR for today's 3:30 pm meeting. Let me know if there is anything else to send. Thanks.



Initial Data -  
November 2018....

-----Original Appointment-----

**From:** Wehrum, Bill  
**Sent:** Monday, December 03, 2018 12:39 PM  
**To:** Wehrum, Bill; Woods, Clint; Koerber, Mike; Rimer, Kelly; Davis, Alison; Smith, Darcie; Weinstock, Lewis; Bremer, Kristen; Chen, Xi  
**Cc:** Harlow, David  
**Subject:** Meeting re: Willowbrook samples  
**When:** Tuesday, December 04, 2018 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with RTP **Personal Phone / Ex. 6**

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer

<< Message: Re: Willowbrook samples Nov 14-20 - All spreadsheets >>

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 2/20/2019 9:48:17 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]  
**Subject:** Re: Bill's calendar 2/4-2/15

Thanks for flagging—I will note that for the AO so they can ensure consistency with the Acting Admin's calendar.

On Feb 20, 2019, at 4:46 PM, Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)> wrote:

Isabel,

This looks good to me.

**Ex. 5 - Deliberative Process**

## Ex. 5 - Deliberative Process

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

**From:** DeLuca, Isabel  
**Sent:** Wednesday, February 20, 2019 4:35 PM  
**To:** Wehrum, Bill <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>; Millett, John <[Millett.John@epa.gov](mailto:Millett.John@epa.gov)>  
**Subject:** Bill's calendar 2/4-2/15

Hi all,

Below is Bill's calendar from 2/4-2/15. Please let me know if you have any questions or concerns.

Thanks,  
 Isabel

2/4/2019 9:30AM Staff briefings  
 2/4/2019 11:30AM Call with Sterigenics

EPA Headquarters  
 EPA Headquarters

2/4/2019	12:30PM	Meeting with Jeff Holmstead	EPA Headquarters
2/4/2019	1:00PM	Staff briefings	EPA Headquarters
2/4/2019	4:30PM	Call with Charles Ingebretson	EPA Headquarters
2/5/2019	9:30AM	Staff briefings	EPA Headquarters
2/5/2019	11:30AM	Ethylene oxide call with Hill Staff	EPA Headquarters
2/5/2019	1:15PM	Staff briefing	EPA Headquarters
2/5/2019	2:00PM	EPA Webinar: Update on Ethylene Oxide Monitoring in Willowbrook, Illinois	EPA Headquarters
2/5/2019	3:00PM	Staff briefings	EPA Headquarters
2/5/2019	4:15PM	MATS call with Senate Energy and Natural Resources Committee Minority Staff and Senate Environment and Public Works Minority Staff	EPA Headquarters
2/6/2019	9:00AM	Speaking Engagement (by Skype): 4C Health, Safety, and Environment Conference	EPA Headquarters
2/6/2019	11:00AM	Staff briefings	EPA Headquarters
2/7/2019	9:30AM	Staff briefings	EPA Headquarters
2/7/2019	2:00PM	Media interview	EPA Headquarters
2/7/2019	3:30PM	Interagency meeting	EPA Headquarters
2/7/2019	4:30PM	Call with Deputy Secretary of Agriculture Stephen Censky	EPA Headquarters
2/8/2019	7:50AM	Staff briefings	EPA Headquarters
2/8/2019	10:30AM	Interagency meeting	U.S. Department of Energy Headquarters
2/8/2019	1:15PM	Staff briefings	EPA Headquarters
2/11/2019	9:30AM	Staff briefings	EPA Headquarters
2/11/2019	4:00PM	Call with Sterigenics	EPA Headquarters
2/12/2019	7:45AM	Speaking Engagement: Consumer Energy Alliance	Washington, DC
2/12/2019	9:15AM	Staff briefing	EPA Headquarters
2/12/2019	10:45AM	Speaking Engagement: NARUC Clean Coal Committee	Washington, DC
2/12/2019	1:00PM	Staff briefing	EPA Headquarters
2/12/2019	2:05PM	Meeting with ConocoPhillips	EPA Headquarters
2/12/2019	3:00PM	Staff briefings	EPA Headquarters
2/13/2019	9:00AM	Staff briefings	EPA Headquarters
2/13/2019	2:00PM	Interagency meeting	The White House
2/13/2019	3:30PM	Meeting with Marathon Petroleum Corporation	EPA Headquarters
2/13/2019	4:30PM	Meeting with Society of Independent Gasoline Marketers of America	EPA Headquarters
2/13/2019	6:00PM	Meeting with Senator Cruz, Senator Inhofe, Senator Toomey, Senator Kennedy, and Senator Lee	Russell Senate Office Building, Washington, DC
2/14/2019	9:15AM	Staff briefings	EPA Headquarters
2/14/2019	11:30AM	Meeting with Natural Gas Vehicles for America	EPA Headquarters
2/14/2019	1:15PM	Call with Sterigenics	EPA Headquarters
2/14/2019	1:30PM	Media Interview	EPA Headquarters
2/14/2019	2:00PM	Staff briefings	EPA Headquarters
2/15/2019	9:00AM	Staff briefings	EPA Headquarters

Isabel DeLuca

Office of Air and Radiation, US EPA

(202) 343-9247



## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 11/27/2018 10:53:51 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**Subject:** Fwd: Sterigenics Press Release  
**Attachments:** Sterigenics Background EO Test Results Release 11.27.18.pdf; ATT00001.htm; Sterigenics Ethylene Oxide Background Levels Data Map\_181127.pdf; ATT00002.htm

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** November 27, 2018 at 5:52:59 PM EST  
**To:** "Rimer, Kelly" <Rimer.Kelly@epa.gov>, "Davis, Alison" <Davis.Alison@epa.gov>, "Weinstock, Lewis" <Weinstock.Lewis@epa.gov>, "Chen, Xi" <Chen.Xi@epa.gov>, "Shapple, Ned" <Shapple.Ned@epa.gov>, "Smith, Darcie" <Smith.Darcie@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>, "Lewis, Josh" <Lewis.Josh@epa.gov>  
**Subject:** FW: Sterigenics Press Release

FYI

**From:** Hoffman, Kathy <KHoffman@sterigenics.com>  
**Sent:** Tuesday, November 27, 2018 5:44 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>  
**Subject:** Sterigenics Press Release

As discussed, attached is a press release on a recent third-party study that sampled and measured the EO Background levels throughout the Chicago area.

Kathy

Kathleen Hoffman  
 Senior Vice President - Global Environmental, Health & Safety and Technical Services  
 Sterigenics, A Sotera Health Company  
 2015 Spring Road, Suite 650  
 Oak Brook, IL 60523  
 Office: 630.928.1758  
[khoffman@sterigenics.com](mailto:khoffman@sterigenics.com)



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The content image001.jpg of type has been blocked.



## THIRD-PARTY AIR TESTING CONFIRMS BACKGROUND LEVELS OF ETHYLENE OXIDE ACROSS CHICAGOLAND AREA

- **Samples taken across a wide geography show background EO present across the diverse locations tested**
- **Strict adherence to quality control and detailed sampling methods avoided any interferences in results**
- **Numerous everyday sources of EO result in background levels of EO throughout Chicagoland**

**Chicago, IL November 27, 2018** – Sterigenics (the “Company”) today issued results from third-party testing of ambient air to gauge the presence of ethylene oxide (“EO”) at 31 locations across the Chicagoland area conducted between October 12 and 23, 2018. The test results clearly show that there are normally occurring levels of background EO across the entire Chicagoland area. The EO measurement process was free of the methodological flaws and interference from other compounds recently revealed by the United States Environmental Protection Agency (“EPA”) related to EPA Region 5 air samples used by the Agency for Toxic Substances and Disease Registry (“ATSDR”) in its August report on EO.

The sampling data map, which is available at [www.sterigenicswillowbrook.com](http://www.sterigenicswillowbrook.com), shows that:

- EO is present in urban and suburban areas across the Chicagoland area and was detected in 38 of 39 samples taken.
- Test samples captured EO levels ranging from a level of .09 ug/m<sup>3</sup> to as high as 1.1 ug/m<sup>3</sup>, all of which are materially higher than the risk-level used by the ATSDR.
- Samples were collected far from Sterigenics’ Willowbrook facility, demonstrating that there are normally occurring levels of background EO.

This background level of EO provides an important and often overlooked frame of reference for future air sampling results, and is consistent with reports of background EO elsewhere in North America.

The Chicagoland EO levels identified in these tests are consistent with what is already known about EO in the scientific community. EO exists naturally in the air around us and most human



exposure to EO is from everyday sources. It is produced from auto exhaust, agricultural chemicals and other commonly found sources. It is also produced by plants and ripening fruit, and even the human body produces EO as we go about our daily lives.

The sterilization process that takes place at the Sterigenics Willowbrook facility is critical to the healthcare system and operates well within federal and state emissions regulations. Sterigenics is committed to taking a leadership role as those regulations evolve while providing the facts to the community to reassure residents that they are safe.

**For additional information on this matter visit [www.sterigenicswillowbrook.com](http://www.sterigenicswillowbrook.com)**

**About Sterigenics:** Sterigenics is a global leader in mission-critical sterilization solutions and expert advisory services. Its 1,600 engineers, scientists and safety specialists provide deep expertise in gamma, EO, Ebeam and X-ray sterilization technologies for the medical device, pharmaceutical, food and commercial safety, and high-performance materials industries. Its network of 47 facilities in 13 countries put its services close to customers' production and distribution points, ensuring it is the "point of safe" for customers around the world.

###

**For more information, please contact: [media@sterigenics.com](mailto:media@sterigenics.com)**

## Message

**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 12/12/2018 2:23:00 PM  
**To:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Rowson, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d4d1a172dcf84d88acc207123d15316a-DROWSON]; Tsirigotis, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c179f3ccb4fadb48e3ae85563f132-PTSIRIGO]  
**CC:** Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Subject:** RE: Village of Willowbrook - EtO Air Monitoring Report

- Bill, + Delaney.

Bill's free at 10:30 if you all are ready to talk that soon. Let us know and Delaney can get an invite out

---

**From:** Koerber, Mike  
**Sent:** Tuesday, December 11, 2018 6:55 PM  
**To:** Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Harlow, David <harlow.david@epa.gov>; Rowson, David <Rowson.David@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>  
**Cc:** Davis, Alison <Davis.Alison@epa.gov>; Rimer, Kelly <Rimer.Kelly@epa.gov>; Bremer, Kristen <Bremer.Kristen@epa.gov>  
**Subject:** Fwd: Village of Willowbrook - EtO Air Monitoring Report

This just in. I know we have a call on Thursday but we'll be available tomorrow if you want to talk earlier.

Sent from my iPhone

Begin forwarded message:

**From:** "Tim Halik" <thalik@willowbrook.il.us>  
**To:** "mdunn@atg.state.il.us" <mdunn@atg.state.il.us>, "ewallace@atg.state.il.us" <ewallace@atg.state.il.us>, "lisa.smith@dupageco.org" <lisa.smith@dupageco.org>  
**Cc:** "Messina, Alec" <Alec.Messina@illinois.gov>, "step.cathy@epa.gov" <step.cathy@epa.gov>, "Creswell, Joel" <Joel.Creswell@mail.house.gov>, "Frank Trilla" <ftrilla@willowbrook.il.us>, "Gayle Neal" <gneal@willowbrook.il.us>, "Terrence Kelly" <tkelly@willowbrook.il.us>, "Michael Mistele" <mmistele@willowbrook.il.us>, "Leroy Hansen" <lhansen@willowbrook.il.us>, "Sue Berglund" <sberglund@willowbrook.il.us>, "Paul Oggerino" <poggerino2@willowbrook.il.us>, "Umberto Davi" <udavi@willowbrook.il.us>, "Tom Bastian" <tbastian@srd-law.com>, "Cipriano, Renee" <RCipriano@schiffhardin.com>, "Andrew Y. Acker" <Andrew@srd-law.com>,

"[senatorcurran@gmail.com](mailto:senatorcurran@gmail.com)" <[senatorcurran@gmail.com](mailto:senatorcurran@gmail.com)>, "John Murphey ([jmurphey@rmcj.com](mailto:jmurphey@rmcj.com))" <[jmurphey@rmcj.com](mailto:jmurphey@rmcj.com)>, "Douglas Pollock" <[DPOLLOCK@BURR-RIDGE.GOV](mailto:DPOLLOCK@BURR-RIDGE.GOV)>, "Weinstock, Lewis" <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>, "Rimer, Kelly" <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>, "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>, "Dyron Hamlin" <[Dyron.Hamlin@ghd.com](mailto:Dyron.Hamlin@ghd.com)>, "Benjamin Chandler" <[Benjamin.Chandler@ghd.com](mailto:Benjamin.Chandler@ghd.com)>, "Bryon Vana" <[bvana@darienil.gov](mailto:bvana@darienil.gov)>  
**Subject: Village of Willowbrook - EtO Air Monitoring Report**

Mr. Dunn, Ms. Wallace, and Ms. Smith –

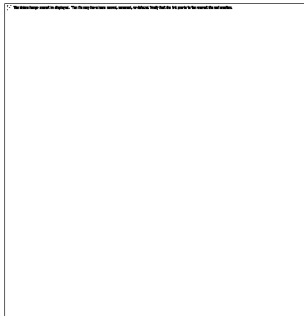
Please see the attached correspondence, with attachment, from Mayor Trilla.

We thank you for your efforts in this matter and support continued action to protect the Willowbrook community.

**Tim Halik**

Village Administrator  
Village of Willowbrook  
835 Midway Drive  
Willowbrook, IL 60527

Office (direct): 630.920.2261  
Fax: 630.323.0787  
E-mail: [thalik@willowbrook.il.us](mailto:thalik@willowbrook.il.us)  
Web: [www.willowbrookil.org](http://www.willowbrookil.org)



## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 12/27/2018 1:26:51 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]  
**Subject:** Re: Bill's calendar 12/10-12/21

Thanks, David, I'll make that change.

On Dec 27, 2018, at 7:26 AM, Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)> wrote:

Isabel,

For this entry

12/13/2016 12:30PM Call with citizen of Willowbrook, IL

you might consider "resident of Willowbrook, IL" instead. But I don't feel that strongly about it.

Apart from that, this looks fine to me.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

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**From:** DeLuca, Isabel  
**Sent:** Friday, December 21, 2018 2:29 PM  
**To:** Wehrum, Bill <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>  
**Cc:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>; Millett, John <[Millett.John@epa.gov](mailto:Millett.John@epa.gov)>  
**Subject:** Bill's calendar 12/10-12/21

Hi all,  
Below is Bill's calendar for 12/10- 12/21. If you have any questions or concerns, please let me know.

12/10/2018	9:30AM	Staff briefings	EPA Headquarters
12/10/2018	4:00PM	Meeting with National Alliance of Forest Owners	EPA Headquarters
12/10/2018	5:00PM	Call with Sterigenics	EPA Headquarters
12/11/2018	9:00AM	Staff briefing	EPA Headquarters
12/11/2018	9:30PM	Meeting with AGC Chemicals Americas	EPA Headquarters
12/11/2018	10:00AM	Staff briefings	EPA Headquarters
12/11/2018	3:00PM	Meeting with National Rural Electric Cooperative Association	EPA Headquarters
12/11/2018	3:30PM	Staff briefings	EPA Headquarters
12/12/2018	9:00AM	Staff briefings	EPA Headquarters
12/13/2018	8:30AM	Staff briefing	EPA Headquarters
12/13/2018	9:30AM	Call with Senator Susan Collins	EPA Headquarters
12/13/2018	10:00AM	Meeting with Association of Equipment Manufacturers	EPA Headquarters
12/13/2018	10:30AM	Staff briefings	EPA Headquarters
12/13/2018	12:30PM	Call with citizen of Willowbrook, IL	EPA Headquarters
12/13/2018	1:00PM	Staff briefings	EPA Headquarters
12/14/2018	9:30AM	Staff briefing	EPA Headquarters
12/14/2018	10:00AM	Meeting with Waste Management and Republic Services	EPA Headquarters
12/14/2018	11:00AM	Staff briefings	EPA Headquarters
12/17/2018	10:00AM	Staff briefings	EPA Headquarters
12/17/2018	3:00PM	Meeting with Hess Corporation and Whiting Petroleum Corporation	EPA Headquarters
12/17/2018	4:00PM	Call with with Sterigenics	EPA Headquarters
12/17/2018	4:30PM	Staff briefing	EPA Headquarters
12/18/2018	9:00AM	Staff briefings	EPA Headquarters
12/18/2018	2:00PM	EPA Webinar: Update on Ethylene Oxide Monitoring in Willowbrook, IL	EPA Headquarters
12/18/2018	3:00PM	Staff briefings	EPA Headquarters
12/19/2019	9:00AM	Staff briefings	EPA Headquarters
12/19/2018	10:30AM	Interagency meeting	EPA Headquarters
12/19/2018	1:00PM	Staff briefings	EPA Headquarters
12/20/2018	8:30AM	Staff briefings	EPA Headquarters
12/20/2018	4:45PM	Call with Global Automakers	EPA Headquarters
12/21/2018	10:30AM	Staff briefings	EPA Headquarters

Many thanks,  
Isabel

Isabel DeLuca  
Office of Air and Radiation, US EPA  
(202) 343-9247

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 10/29/2018 1:49:13 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**Subject:** Phone call with Phil Macnabb re: Sterigenics (confirmed)  
**Location:** WJC - N 5400 { **Personal Phone / Ex. 6** }  
**Start:** 10/29/2018 8:00:00 PM  
**End:** 10/29/2018 8:30:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, David Harlow, Clint Woods, Mandy Gunasekara

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 3/11/2019 7:28:44 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** Personal Phone / Ex. 6  
**Start:** 3/11/2019 8:15:00 PM  
**End:** 3/11/2019 8:45:00 PM  
**Show Time As:** Tentative  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

## Message

**From:** Grantham, Nancy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12A3C2ED7158417FB0BB1B1B72A8CFB0-GRANTHAM, NANCY]  
**Sent:** 9/26/2018 3:30:06 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]  
**CC:** Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** RE: Ethylene Oxide & Willowbrook Fact Sheet

Got it – call at noon has only HQ on it thanks ng

**Nancy Grantham**  
**Office of Public Affairs**  
**US Environmental Protection Agency**  
**202-564-6879 (desk)**  
**202-253-7056 (mobile)**

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**From:** Woods, Clint  
**Sent:** Wednesday, September 26, 2018 11:24 AM  
**To:** Jackson, Ryan <jackson.ryan@epa.gov>  
**Cc:** Grantham, Nancy <Grantham.Nancy@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Konkus, John <konkus.john@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Harlow, David <harlow.david@epa.gov>  
**Subject:** Re: Ethylene Oxide & Willowbrook Fact Sheet

Got it - Will plan to participate. For additional background, here's existing national ethylene oxide fact sheet: <https://www.epa.gov/hazardous-air-pollutants-ethylene-oxide/fact-sheet-epa-taking-steps-address-emissions-ethylene-oxide>

And background on NATA: <https://www.epa.gov/national-air-toxics-assessment>

On Sep 26, 2018, at 11:08 AM, Jackson, Ryan <jackson.ryan@epa.gov> wrote:

## Deliberative Process / Ex. 5

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**From:** Woods, Clint  
**Sent:** Wednesday, September 26, 2018 10:21 AM  
**To:** Grantham, Nancy <Grantham.Nancy@epa.gov>  
**Cc:** Jackson, Ryan <jackson.ryan@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Konkus, John <konkus.john@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Gunasekara, Mandy

<[Gunasekara.Mandy@epa.gov](mailto:Gunasekara.Mandy@epa.gov)>; Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>

**Subject:** Re: Ethylene Oxide & Willowbrook Fact Sheet

Yes for OAR, and I am happy to participate as well

On Sep 26, 2018, at 10:13 AM, Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)> wrote:

## Deliberative Process / Ex. 5

**Nancy Grantham**  
**Office of Public Affairs**  
**US Environmental Protection Agency**  
**202-564-6879 (desk)**  
**202-253-7056 (mobile)**

---

**From:** Jackson, Ryan

**Sent:** Wednesday, September 26, 2018 9:55 AM

**To:** Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>

**Cc:** Lyons, Troy <[lyons.troy@epa.gov](mailto:lyons.troy@epa.gov)>; Konkus, John <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)>; Wehrum, Bill <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>; Gunasekara, Mandy <[Gunasekara.Mandy@epa.gov](mailto:Gunasekara.Mandy@epa.gov)>; Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Grantham, Nancy <[Grantham.Nancy@epa.gov](mailto:Grantham.Nancy@epa.gov)>

**Subject:** Re: Ethylene Oxide & Willowbrook Fact Sheet

## Deliberative Process / Ex. 5

Big thanks

Ryan.

Ryan Jackson  
Chief of Staff  
U.S. EPA

**Personal Phone / Ex. 6**

On Sep 26, 2018, at 9:31 AM, Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)> wrote:

Ryan, Troy, and John,

Attached is our working fact sheet related to ethylene oxide, the National Air Toxics Assessment, and Willowbrook, IL. It should provide background information for inquiries and use for upcoming R5 meetings on status. It draws upon feedback from ORD and was developed by our Office of Air Quality Planning and Standards.

Happy to discuss how we can incorporate into responses. Thanks!

Clint Woods  
Deputy Assistant Administrator  
Office of Air and Radiation, U.S. EPA  
202.564.6562

<Background Materials for Willowbrook -9-26-18 draft REVISED2.docx>

Message

**From:** Edwards, Jonathan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3715BC4DFC3E4D6CAF3AF1BF2FC5CA77-JEDWAR02]  
**Sent:** 1/24/2019 6:55:18 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** ORIA Shutdown Report Update -- Jan. 24, 2019  
**Attachments:** ORIAshutdownreportupdate\_no1\_Jan24\_2019.docx

Dear Bill and others---

As you requested earlier this morning, I've attached (with copy in body of email) is an update to the shutdown report for ORIA, with new edits and additions highlighted in yellow. Any questions, please don't hesitate to call- **Personal Phone / Ex. 6**

**Personal Phone / Ex. 6** Many thanks for your support --Jon

\*\*\*\*\*

**Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 11/26/2018 3:02:41 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** **Personal Phone / Ex. 6**  
**Start:** 11/26/2018 9:30:00 PM  
**End:** 11/26/2018 10:00:00 PM  
**Show Time As:** Tentative

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 12/11/2018 4:42:56 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**CC:** Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]  
**Subject:** RE: Bill's calendar 11/26-12/7

Thanks!

---

**From:** Harlow, David  
**Sent:** Tuesday, December 11, 2018 11:39 AM  
**To:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>  
**Cc:** Millett, John <Millett.John@epa.gov>  
**Subject:** RE: Bill's calendar 11/26-12/7

Isabel,

Looks good to me. Thank you.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** DeLuca, Isabel  
**Sent:** Tuesday, December 11, 2018 11:25 AM  
**To:** Wehrum, Bill <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>; Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Cc:** Millett, John <[Millett.John@epa.gov](mailto:Millett.John@epa.gov)>  
**Subject:** Bill's calendar 11/26-12/7

Hi all,  
 It's calendar week -- below is Bill's calendar 11/26-12/7. Please let me know if you have any questions or concerns.  
 Thanks for taking a look.  
 --Isabel

11/26/2018 9:30AM Staff briefings  
 11/26/2018 3:00PM Media Interview

EPA Headquarters  
 EPA Headquarters

11/26/2018	3:30PM	Meeting with Ariel Corp. and VNG.CO	EPA Headquarters
11/26/2018	4:30PM	Call with Sterigenics	EPA Headquarters
11/27/2018	10:00AM	Staff briefings at EPA's Ann Arbor Lab	Ann Arbor, MI
11/27/2018	1:00PM	Site visit to Eaton Corporation Innovation Center	Southfield, MI
11/28/2018	9:00AM	Staff briefing	EPA Headquarters
11/28/2019	10:00AM	Interagency meeting	The White House
11/28/2018	11:30AM	Staff briefings	EPA Headquarters
11/28/2018	4:30PM	Meeting with Lignite Energy Council	EPA Headquarters
11/28/2018	5:00PM	Meeting with Pearson Fuels	EPA Headquarters
11/28/2019	6:00PM	Staff briefing	EPA Headquarters
11/29/2018	12:00PM	Meeting with Willowbrook, IL elected officials	Willowbrook, IL
11/29/2018	2:00PM	Sterigenics facility tour	Willowbrook, IL
11/29/2018	3:00PM	Open House on ethylene oxide	Willowbrook, IL
11/29/2018	7:00PM	Community Forum on ethylene oxide	Willowbrook, IL
11/30/2018	11:30AM	Staff briefing	EPA Headquarters
11/30/2018	12:30PM	Call with Jeff Lautt, POET LLC.	EPA Headquarters
11/30/2018	1:30PM	Staff briefings	EPA Headquarters
11/30/2018	3:30PM	Meeting with Department of Energy	EPA Headquarters
12/3/2018	9:30AM	Staff briefings	EPA Headquarters
12/3/2018	5:00PM	Call with Sterigenics	EPA Headquarters
12/4/2018	9:00AM	Staff briefings	EPA Headquarters
12/4/2018	11:00AM	Interagency meeting with California Air Resources Board	The White House
12/4/2018	1:00PM	Meeting with Anadarko Petroleum	EPA Headquarters
12/4/2018	2:00PM	Staff briefings	EPA Headquarters
12/5/2018		No scheduled meetings	
12/6/2018	8:30AM	Staff briefings	EPA Headquarters
12/6/2018	4:30PM	Meeting with Ingevity	EPA Headquarters
12/6/2018	5:00PM	Meeting with Ute Tribe	EPA Headquarters
12/7/2018	9:30AM	Staff briefing	EPA Headquarters
12/7/2018	10:00AM	Meeting with Outdoor Power Equipment Institute	EPA Headquarters
12/7/2018	11:00AM	Meeting with Environmental Defense Fund	EPA Headquarters
12/7/2018	1:00PM	Staff briefings	EPA Headquarters
12/7/2018	2:45PM	Conference call with TransCanada	EPA Headquarters
12/7/2018	4:00PM	Media Interview	EPA Headquarters

**Isabel DeLuca**

Office of Air and Radiation, US EPA

(202) 343-9247

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 11/8/2018 6:34:53 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Meeting with Phil MacNabb re: Sterigenics (CONFIRMED)  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 11/13/2018 2:30:00 PM  
**End:** 11/13/2018 3:15:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, David Harlow, Mandy Gunasekara, Clint Woods

**Meeting attendees (in person):**

- Phil MacNabb – Sterigenics
- Byron Taylor – Sidley Austin

NOTE: This meeting was scheduled through a phone conversation.

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 5:08:52 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 12/3/2018 10:00:00 PM  
**End:** 12/3/2018 10:30:00 PM  
**Show Time As:** Tentative

Message

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**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 11/30/2018 4:56:45 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Grantham, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12a3c2ed7158417fb0bb1b1b72a8cfb0-Grantham, Nancy]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]  
**Subject:** coverage from last night's hearing

In case you haven't seen this local news coverage from last night's hearing:

<https://wgntv.com/2018/11/29/epa-to-hold-forum-to-address-health-concerns-in-willowbrook/>

Isabel DeLuca  
Office of Air and Radiation, US EPA  
(202) 343-9247

## Message

**From:** Lubetsky, Jonathan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E125D09A658E48119789CCA5712B4A5-JLUBETSK]  
**Sent:** 11/20/2018 6:52:33 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]  
**CC:** Shoaff, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac16fb09cf2c44adb34a7405dc331532-JShoaff]  
**Subject:** RE: Internal & Deliberative--Hearing Prep  
**Attachments:** Wheeler nomination - HEARING TOPICS - 112018.docx

# Deliberative Process / Ex. 5

**From:** Woods, Clint  
**Sent:** Tuesday, November 20, 2018 11:47 AM  
**To:** Dominguez, Alexander <dominguez.alexander@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>  
**Subject:** Fwd: Internal & Deliberative--Hearing Prep

Begin forwarded message:

**From:** "Lyons, Troy" <lyons.troy@epa.gov>  
**Date:** November 19, 2018 at 6:06:37 PM EST  
**To:** "Jackson, Ryan" <jackson.ryan@epa.gov>, "Molina, Michael" <molina.michael@epa.gov>, "Wehrum, Bill" <Wehrum.Bill@epa.gov>, "Ross, David P" <ross.davidp@epa.gov>, "Greaves, Holly" <greaves.holly@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Bodine, Susan" <bodine.susan@epa.gov>  
**Cc:** "Forsgren, Lee" <Forsgren.Lee@epa.gov>, "Gunasekara, Mandy" <Gunasekara.Mandy@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>, "Wildeman, Anna" <wildeman.anna@epa.gov>, "Dunlap, David" <dunlap.david@epa.gov>, "Beck, Nancy" <Beck.Nancy@epa.gov>, "Wright, Peter" <wright.peter@epa.gov>, "Cook, Steven" <cook.steven@epa.gov>, "Baptist, Erik" <Baptist.Erik@epa.gov>, "Konkus, John" <konkus.john@epa.gov>, "Brazauskas, Joseph" <brazauskas.joseph@epa.gov>, "Block, Molly" <block.molly@epa.gov>, "Hewitt, James" <hewitt.james@epa.gov>, "Abboud, Michael" <abboud.michael@epa.gov>, "Palich, Christian" <palich.christian@epa.gov>, "Frye, Tony (Robert)" <rye.robert@epa.gov>, "Darwin, Henry" <darwin.henry@epa.gov>, "McIntosh, Chad" <mcintosh.chad@epa.gov>  
**Subject:** FW: Internal & Deliberative--Hearing Prep

# Deliberative Process / Ex. 5

# Deliberative Process / Ex. 5

**From:** Lyons, Troy

**Sent:** Monday, November 19, 2018 5:58 PM

**To:** Richardson, RobinH <[Richardson.RobinH@epa.gov](mailto:Richardson.RobinH@epa.gov)>; Palich, Christian <[palich.christian@epa.gov](mailto:palich.christian@epa.gov)>;  
Frye, Tony (Robert) <[frye.robert@epa.gov](mailto:frye.robert@epa.gov)>; Levine, Carolyn <[Levine.Carolyn@epa.gov](mailto:Levine.Carolyn@epa.gov)>; Haman, Patricia  
<[Haman.Patricia@epa.gov](mailto:Haman.Patricia@epa.gov)>; Kaiser, Sven-Erik <[Kaiser.Sven-Erik@epa.gov](mailto:Kaiser.Sven-Erik@epa.gov)>; Moody, Christina  
<[Moody.Christina@epa.gov](mailto:Moody.Christina@epa.gov)>

**Cc:** Aaron Ringel ([ringel.aaron@epa.gov](mailto:ringel.aaron@epa.gov)) <[ringel.aaron@epa.gov](mailto:ringel.aaron@epa.gov)>; Rodrick, Christian  
<[rodrick.christian@epa.gov](mailto:rodrick.christian@epa.gov)>

**Subject:** Internal & Deliberative--Hearing Prep

**Importance:** High

# Deliberative Process / Ex. 5

# Deliberative Process / Ex. 5

# **Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 12/7/2018 12:06:43 AM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**Subject:** Re: language for posting monitoring data

Deliberative Process / Ex. 5

On Dec 6, 2018, at 5:43 PM, Harlow, David <harlow.david@epa.gov> wrote:

Isabel,

## Deliberative Process / Ex. 5

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

**From:** DeLuca, Isabel  
**Sent:** Thursday, December 6, 2018 3:58 PM  
**To:** Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Harlow, David <harlow.david@epa.gov>  
**Cc:** Davis, Alison <Davis.Alison@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Subject:** language for posting monitoring data

Hi all,

Attached and pasted below is revised web language and FAQs to post with the Willowbrook air monitoring data. OAQPS reviewed the edits we discussed this afternoon and had some additional suggestions, which I've incorporated.

Deliberative Process / Ex. 5

**Deliberative Process / Ex. 5**

OAQPS plans post tomorrow morning. If you have additional edits, please let me know.

Thanks,  
Isabel

# **Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

**Isabel DeLuca**  
Office of Air and Radiation, US EPA  
(202) 343-9247

Message

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**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 2/13/2019 6:27:27 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]  
**Subject:** FW: 19.02.13 - Wheeler Sterigenics.pdf  
**Attachments:** 19.02.13 - Wheeler Sterigenics.pdf

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**From:** Davis, Alison  
**Sent:** Wednesday, February 13, 2019 12:37 PM  
**To:** Woods, Clint <woods.Clint@epa.gov>  
**Cc:** Koerber, Mike <Koerber.Mike@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>  
**Subject:** 19.02.13 - Wheeler Sterigenics.pdf

FYI. Making you aware of this, which we received from a citizen today.

# Congress of the United States

Washington, DC 20510

February 13, 2019

## VIA ELECTRONIC DELIVERY

The Honorable Andrew Wheeler  
Acting Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20004

Dear Acting Administrator Wheeler:

We write to request that you, as Acting Administrator of the U.S. Environmental Protection Agency (EPA), take several steps to protect the community of Willowbrook, Illinois, which is facing a public health threat posed by a Sterigenics sterilization facility.

The Sterigenics facility uses ethylene oxide (EtO), classified as a known carcinogen in 2016, that has been under scrutiny after EPA's National Air Toxics Assessment and a report by the Agency for Toxic Substances and Disease Registry (ATSDR) indicated the community there has an increased cancer risk. Data published last week by EPA indicates that despite installing pollution control equipment high levels of EtO were measured, threatening the health of Willowbrook residents. Last week's data was collected from eight air monitors placed throughout Willowbrook as part of a three-month effort to collect data near the Sterigenics facility to better understand the levels of EtO in the air. The data from these monitors are alarming. In one instance, the EtO detected was 350 times more than the level deemed safe by EPA.

To that end, we request that you direct EPA to do the following:

1. Require an emission audit of Sterigenics, to be conducted by a third-party and unbiased engineering firm;
2. Immediately issue an interim final rule for Sterilizers using your authority under Section 553(b)(B) of the Administrative Procedure Act;
3. Direct the Criminal Enforcement Division at Region 5 to open an investigation into alarming allegations made by former Sterigenics employees in a CBS News article that was published on February 3, 2019<sup>1</sup>;
4. Immediately terminate the comment process on EtO's updated risk assessment for regulatory purposes that was buried in EPA's December 20, 2018, Residual Risk and Technology Review (RTR) for Hydrochloric Acid;
5. Investigate whether Sterigenics violated its conditional registration of EtO under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);
6. Continue ambient air monitoring around Sterigenics, beyond the current 3-month plan, and ensure the results of monitoring are made publicly available; and
7. Commission a Nationwide study on the background levels of EtO.

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<sup>1</sup> <https://chicago.cbslocal.com/2019/02/03/sterigenics-covered-up-toxic-emissions-operated-secret-plants/>

In your response, we request that you provide us with a clear timeline of when you will initiate each of the requests made above and reasonably expect to complete.

*Conduct an EtO emission audit at Sterigenics*

Sterigenics sterilizes equipment in chambers that are found in two separate buildings. Products are routinely moved in-and-out of these buildings, and we are concerned that, in addition to the emissions from the back-vent, there are other pathways for fugitive EtO emissions. EPA must work with Sterigenics on determining if there are any steps the company can take immediately that will reduce the exposure risk to Willowbrook.

*Immediately use authority to publish an interim final rule for Sterilizers*

We understand EPA is working on updating its regulations for ethylene oxide and that this process will take time, but the residents of Willowbrook need relief now. That is why we are requesting EPA to immediately publish an interim final rule for sterilizers, which EPA has the authority to do under Section 553(b)(B) of the Administrative Procedure Act and Section 112 of the Clean Air Act. This provision provides that, when an agency for good cause finds that notice and public procedures are impracticable, unnecessary or contrary to the public interest, the agency may issue a rule without providing notice and an opportunity for public comment. Simply put, in extraordinary cases, when harm can be done if action is not immediately taken, EPA must be compelled to act in the public interest without delay. It is evident from the alarming ambient air data published by EPA this week that your Agency would be well within its right to use this authority.

*Open a criminal investigation into allegations of misconduct by former employees*

We are also concerned that Sterigenics employees have been exposed to undue risk. A CBS News report detailed alarming allegations of misconduct by senior management at this very facility by former employees. Among the allegations made were failure to accurately self-report EtO emissions, improper venting practices, failure to protect workers with respirators and masks and dumping ethylene glycol into public sewage drains. It is critical that you immediately direct your Criminal Enforcement Division to open a criminal investigation into these claims. Doing so will reassure the workers there that they have not been forgotten.

*Abandon unprecedented effort to diminish EPA's EtO risk assessment*

Two weeks ago, we sent a letter expressing alarm and opposition to EPA's inclusion of EtO in a rulemaking that was published on a separate chemical, Hydrochloric Acid. This rule included a transparent invitation for chemical industries to propose ways to weaken EPA's forthcoming policies meant to protect communities from cancer risk resulting from exposure to EtO. EPA must abandon this comment process and use its own assessment for determining inhalation risk values. Doing otherwise would be a departure and contradiction to the Agency's own longstanding policy.

*Investigate Sterigenic's conditional registration of EtO under FIFRA*

Furthermore, we are concerned that Sterigenics may have violated the conditions EPA has set upon them under FIFRA. Sterigenics has a conditional registration under FIFRA, which means that the company is subject to specific rules in regards to the use, storage, and disposal of EtO. It

also includes special requirements on personal protective equipment for workers at this facility. Based on the claims made by former employees by the CBS news article, EPA must investigate whether a violation of this law has occurred. If a violation has been found, EPA would have the authority under FIFRA Section 14(a) and 14(b) to pursue civil and criminal action against the Company.

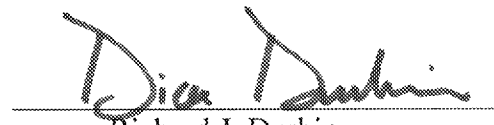
*Commission a Nationwide study on the background levels of EtO*

Earlier this year, in an effort to undermine EPA's data collection efforts and to cause confusion among community members, Sterigenics initiated a report by Ramboll. This report claimed to have found high levels of EtO throughout the Chicagoland area. Although we do not dispute that there is background levels of EtO in urban areas, we cannot rely on a report commissioned by Sterigenics or the chemical industry to be used to make any scientific determination. In order to settle this debate, we request you to commission a nationwide report to determine what the background level of EtO actually is.

It is time for EPA to move from fact-finding to acting on this public health threat in Willowbrook. We appreciate your attention and timely response to this urgent request.


Sincerely,

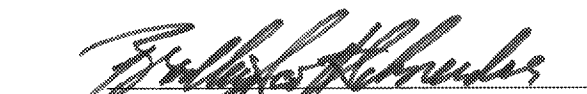
  
Tammy Duckworth  
United States Senator

  
Richard J. Durbin  
United States Senator

  
Sean Casten  
United States Representative

  
Bill Foster  
United States Representative

  
Daniel W. Lipinski  
United States Representative

  
Bradley S. Schneider  
United States Representative

Appointment

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**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 9/26/2018 12:08:13 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Meeting with Sterigenics (confirmed)  
**Attachments:** CONFIRMED RE: Request on Behalf of Sterigenics for Meeting with AA Wehrum / Deputy AA Woods  
**Location:** WJC - N 5400  
  
**Start:** 9/26/2018 5:00:00 PM  
**End:** 9/26/2018 5:45:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, David Harlow

**Meeting attendees (in person)**

- Philip Macnaab, President, Sterigenics
- Kathy Hoffman, Senior Vice President, Sterigenics
- Byron Taylor, Sidley Austin, Outside Environmental Counsel to Sterigenics
- Tom Roberts, Van Ness Feldman, Outside Government Relations Counsel to Sterigenics



CONFIRMED RE:  
Request on Beha...

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/25/2019 8:56:11 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 2/25/2019 9:00:00 PM  
**End:** 2/25/2019 9:30:00 PM  
**Show Time As:** Tentative  
  
**Recurrence:** Weekly  
every Monday from 4:00 PM to 4:30 PM

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/19/2019 5:59:13 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 2/19/2019 6:00:00 PM  
**End:** 2/19/2019 6:30:00 PM  
**Show Time As:** Tentative

Message

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**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 11/15/2018 9:48:45 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** RE: Bill's calendar 10/29-11/9

Thank you!

---

**From:** Harlow, David  
**Sent:** Thursday, November 15, 2018 2:53 PM  
**To:** Lewis, Josh <Lewis.Josh@epa.gov>; DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** RE: Bill's calendar 10/29-11/9

Isabel,

This looks good to me. Thank you.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Lewis, Josh  
**Sent:** Thursday, November 15, 2018 2:35 PM  
**To:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Harlow, David <harlow.david@epa.gov>; Atkinson, Emily <Atkinson.Emily@epa.gov>  
**Cc:** Millett, John <Millett.John@epa.gov>  
**Subject:** RE: Bill's calendar 10/29-11/9

One addition in red below (I updated on Bill's calendar as well)

---

**From:** DeLuca, Isabel  
**Sent:** Thursday, November 15, 2018 2:03 PM  
**To:** Wehrum, Bill <Wehrum.Bill@epa.gov>; Harlow, David <harlow.david@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Atkinson, Emily <Atkinson.Emily@epa.gov>  
**Cc:** Millett, John <Millett.John@epa.gov>  
**Subject:** Bill's calendar 10/29-11/9

Hi all,

It's calendar week once again. Bill's calendar for 10/29-11/9 is pasted below for review. Please let me know if you have any questions or edits.

Many thanks,  
Isabel

10/29/2018	9:15AM	Staff briefings	EPA Headquarters
10/29/2018	11:30AM	Meeting with petitioners re: Small Refiner Exemption Litigation	EPA Headquarters
10/29/2018	12:30PM	Staff briefings	EPA Headquarters
10/29/2018	4:00PM	Call with Sterigenics	EPA Headquarters
10/29/2018	4:45PM	Meeting with Federal Railroad Administration	EPA Headquarters
10/30/2018	10:00AM	Staff briefings at EPA's Ann Arbor Lab	Ann Arbor, MI
10/30/2018	1:30PM	Meeting with Detroit Diesel Corporation	Detroit, MI
10/31/2018	9:00AM	Staff briefing	EPA Headquarters
10/31/2018	10:00AM	Meeting with HollyFrontier	EPA Headquarters
10/31/2018	11:00AM	Staff briefings	EPA Headquarters
10/31/2018	4:30PM	Meeting with Michael O'Bannon and Jack Barrow	EPA Headquarters
11/1/2018	8:30AM	Staff briefings	EPA Headquarters
11/1/2018	11:30AM	Meeting with Nissan	EPA Headquarters
11/1/2018	12:15AM	Staff briefings	EPA Headquarters
11/2/2018	9:30AM	Staff briefings	EPA Headquarters
11/2/2018	5:00PM	Interagency call	EPA Headquarters
11/5/2018	9:30AM	Staff briefings	EPA Headquarters
11/5/2018	4:00PM	Call with Sterigenics	EPA Headquarters
11/6/2018	12:00PM	Staff briefings	EPA Region 2, New York, NY
11/7/2018	9:30AM	Staff briefings	EPA Headquarters
11/7/2018	3:00PM	Meeting with Fiat Chrysler	EPA Headquarters
11/7/2018	4:00PM	Staff briefings	EPA Headquarters
11/8/2018	9:30AM	Interagency meeting	The White House
11/8/2018	11:00AM	Staff briefings	EPA Headquarters
11/9/2018	9:30AM	Staff briefings	EPA Headquarters
11/9/2018	3:00PM	Meeting with Securing America's Future Energy (SAFE)	EPA Headquarters
11/9/2018	4:00PM	Staff briefings	EPA Headquarters

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 1/22/2019 8:27:48 PM  
**To:** Haman, Patricia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0ebb27cd881d41b19a30a491dc3f3f57-phaman]  
**CC:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Lubetsky, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e125d09a658e48119789ccae5712b4a5-JLUBETSK]; Frye, Tony (Robert) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=58c08abdfc1b4129a10456b78e6fc2e1-Frye, Rober]  
**Subject:** RE: Changes to the QFRs I wanted to make sure you saw

Pat,

For question 48, I'm double checking with OAQPS but here's the only updates I am aware of from the list (R5 and/or OLEM would have latest for most of these):

## Deliberative Process / Ex. 5

vi. Sterigenics

### Deliberative Process / Ex. 5

**From:** Woods, Clint  
**Sent:** Tuesday, January 22, 2019 1:49 PM  
**To:** Haman, Patricia <Haman.Patricia@epa.gov>  
**Cc:** Harlow, David <harlow.david@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>; Frye, Tony (Robert) <frye.robert@epa.gov>  
**Subject:** Re: Changes to the QFRs I wanted to make sure you saw

Thanks so much! Corresponded with OP on 66, and I think OECA May be best positioned for 56. Will take a closer look at 48

On Jan 22, 2019, at 12:34 PM, Haman, Patricia <Haman.Patricia@epa.gov> wrote:

Hi Clint, Based on our discussion earlier, it seems like you folks have a great handle on the QFRs. I walked through the latest version of assignments and wanted to make sure you were aware of some revisions:

## Deliberative Process / Ex. 5

Thank you, Pat

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 2/4/2019 4:59:08 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: Deliberative - Question for your review

# Deliberative Process / Ex. 5

**From:** Davis, Alison  
**Sent:** Monday, February 4, 2019 11:45 AM  
**To:** Woods, Clint <woods.Clint@epa.gov>  
**Cc:** Koerber, Mike <Koerber.Mike@epa.gov>; Rimer, Kelly <Rimer.Kelly@epa.gov>; DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** Deliberative - Question for your review

DRAFT – two options for your consideration

## DRAFT DELIBERATIVE – OPTIONS

# Deliberative Process / Ex. 5

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/22/2019 7:35:32 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Newton, Cheryl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ae08c2f1c2304a61bf7c01de62f35dbf-Cenewton]; Thiede, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc09fac5acc4ce1ba689fb2ce70d459-Thiede, Kur]; Nelson, Leverett [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2229a07c2cb442b182332d9dcc325f13-LNelson]; Nam, Ed [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a2653f1ddd59470688ba557dd84d9690-Nam, Ed]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeecc4ffeaad446bb35e05b24-Brazauskas,]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]  
**Subject:** Call with Region 5 re: Sterigenics  
**Attachments:** Re: Sterigenics - foundational support for USEPA's sampling data  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 2/22/2019 9:15:00 PM  
**End:** 2/22/2019 10:00:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Justin Schwab, Cheryl Newton, Kurt Thiede, Levertt Nelson, Ed Nam, Joe Brazaskas, Mike Koerber, David Harlow



Re: Sterigenics -  
foundational sup...

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 12/6/2018 8:58:08 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**CC:** Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**Subject:** language for posting monitoring data  
**Attachments:** Draft language for posting monitoring data OAR IO, OAQPS.docx; DRAFT .FAQs for initial EtO data posting.12.6.18 OAR IO edits.oaqps back.docx

Hi all,

Attached and pasted below is revised web language and FAQs to post with the Willowbrook air monitoring data. OAQPS reviewed the edits we discussed this afternoon and had some additional suggestions, which I've incorporated.

Deliberative Process / Ex. 5

**Deliberative Process / Ex. 5**

OAQPS plans post tomorrow morning. If you have additional edits, please let me know.

Thanks,  
Isabel

**Deliberative Process / Ex. 5**

# **Deliberative Process / Ex. 5**

**Isabel DeLuca**  
Office of Air and Radiation, US EPA  
(202) 343-9247

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 2/19/2019 12:54:42 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** Fwd: Latest Willowbrook table and maps  
**Attachments:** 021219 v1 Willowbrook EtO Master Data Table for Web.xlsx; ATT00001.htm; Willowbrook EtO working slides Feb 12 2019.pptx; ATT00002.htm

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** February 12, 2019 at 3:59:51 PM EST  
**To:** "Lewis, Josh" <Lewis.Josh@epa.gov>  
**Cc:** "Woods, Clint" <woods.clint@epa.gov>  
**Subject:** FW: Latest Willowbrook table and maps

Josh – Please print a copy of the spreadsheet for Bill.

**Deliberative Process / Ex. 5**

**Deliberative Process / Ex. 5** Also, I'd like to get 30 minutes to talk with Bill and Clint over the next few days to discuss next steps on monitoring. We are only planning to sample through the end of the month and need to make decisions soon if we want to extend the monitoring.

Mike

**From:** Weinstock, Lewis  
**Sent:** Tuesday, February 12, 2019 3:17 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Chen, Xi <Chen.Xi@epa.gov>; McBrien, Jenia <McBrien.Jenia@epa.gov>; Noah, Greg <Noah.Greg@epa.gov>; Thurman, James <Thurman.James@epa.gov>  
**Subject:** Latest Willowbrook table and maps

Hi Mike:

Attached are the latest data for the Willowbrook study – thanks to Doris and Greg for the data review and to James for the wind roses. I used the webinar slide deck for the update so the file is all inclusive. The study's EtO averages to date are updated through January 17, 2019.

Please let us know if you have any questions. Do you want me to forward this information to the technical folks in Region 5 (Compher, Nwia) for their inspection?

Lewis Weinstock | Group Leader | Ambient Air Monitoring Group | Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Phone: 919-541-3661|

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 3/5/2019 2:35:30 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**CC:** Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**Subject:** TRI EtO questions  
**Attachments:** 2017 TRI NA Questions Answers\_3.1.19\_feedback from IO OCSPP TRIPD 4 March 2019\_CLEAN.docx

Hi all,

Below are the Q&As about TRI and EtO that OCSPP helped develop yesterday. If you have questions or concerns about these, please let me know.

Also, if you're interested, is a full list of TRI Q&As that they're planning to post to their website today (these don't include EtO Qs, which we'll keep on hand in case of incoming questions).

Thanks,  
Isabel

# Deliberative Process / Ex. 5

# **Deliberative Process / Ex. 5**

# Deliberative Process / Ex. 5

Isabel DeLuca  
Office of Air and Radiation, US EPA  
(202) 343-9247

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 12/28/2018 5:31:07 PM  
**To:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** Fwd: - FW: DRAFT DELIBERATIVE.Shutdown question.docx  
**Attachments:** 303q&a.docx; ATT00001.htm

Mike,

See suggested language from David - Thanks!

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** December 27, 2018 at 10:05:28 AM EST  
**To:** "Lewis, Josh" <Lewis.Josh@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>  
**Subject:** FW: - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Josh, Clint: We are working on another batch of Q&As for the website Deliberative Process / Ex. 5

**Deliberative Process / Ex. 5**

Here is what we sent to OAR a couple weeks ago – see below and attachment. My understanding is that David and Justin were planning to review. Let me know if there is any feedback on the draft response – either the shorter version of the attached longer version. Thanks.

Mike

---

**From:** Davis, Alison  
**Sent:** Thursday, December 13, 2018 11:58 AM  
**To:** Lewis, Josh <Lewis.Josh@epa.gov>  
**Cc:** Koerber, Mike <Koerber.Mike@epa.gov>; Rimer, Kelly <Rimer.Kelly@epa.gov>  
**Subject:** - FW: DRAFT DELIBERATIVE.Shutdown question.docx  
**Importance:** High

# Deliberative Process / Ex. 5

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**From:** Thrift, Mike

**Sent:** Thursday, December 13, 2018 11:48 AM

**To:** Rodman, Sonja <[Rodman.Sonja@epa.gov](mailto:Rodman.Sonja@epa.gov)>; Davis, Alison  
<[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Doster, Brian <[Doster.Brian@epa.gov](mailto:Doster.Brian@epa.gov)>

**Subject:** RE: Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown  
question.docx

Here are some suggested edits in the attached, and explanations for  
them:

# Attorney Client / Ex. 5

# Attorney Client / Ex. 5

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**From:** Rodman, Sonja  
**Sent:** Thursday, December 13, 2018 7:03 AM  
**To:** Thrift, Mike <[thrift.mike@epa.gov](mailto:thrift.mike@epa.gov)>  
**Subject:** Fwd: Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Mike, can you look at this?

Sent from my iPhone

Begin forwarded message:

**From:** "Davis, Alison" <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>  
**Date:** December 13, 2018 at 9:58:31 AM EST  
**To:** "Rodman, Sonja" <[Rodman.Sonja@epa.gov](mailto:Rodman.Sonja@epa.gov)>  
**Subject:** Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown question.docx

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**From:** Davis, Alison  
**Sent:** Wednesday, December 12, 2018 6:40 PM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Subject:** DRAFT DELIBERATIVE.Shutdown question.docx

As requested. For your review.

## Message

**From:** Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]  
**Sent:** 2/16/2019 5:09:52 PM  
**To:** Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]  
**CC:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Thiede, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc09fac5acc4ce1ba689fb2ce70d459-Thiede, Kur]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Tsirigotis, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c179f3ccb4fadb48e3ae85563f132-PTSIRIGO]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Grantham, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12a3c2ed7158417fb0bb1b1b72a8cfb0-Grantham, Nancy]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]  
**Subject:** Re: Draft statement

Thank you.

On Feb 16, 2019, at 11:57 AM, Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)> wrote:

Here is a draft from OAR

Sent from my iPhone

Begin forwarded message:

**From:** "Wehrum, Bill" <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>  
**Date:** February 16, 2019 at 11:27:05 AM EST  
**To:** "Davis, Alison" <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>  
**Cc:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>, "Harlow, David" <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>, "Tsirigotis, Peter" <[Tsirigotis.Peter@epa.gov](mailto:Tsirigotis.Peter@epa.gov)>, "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>, "Weinstock, Lewis" <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>, "Rimer, Kelly" <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>, "DeLuca, Isabel" <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>, "Noonan, Jenny" <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>  
**Subject:** Re: please read this draft

I'm good with this.

---

Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

On Feb 16, 2019, at 10:33 AM, Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)> wrote:

With some edits from Mike



**Deliberative Process / Ex. 5**

Sent from my iPhone

## Message

**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 2/16/2019 3:24:13 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** Fwd: IL EPA - Draft internal

Adding Bill and David to this thread

Sent from my iPhone

Begin forwarded message:

**From:** "Davis, Alison" <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>  
**Date:** February 16, 2019 at 10:04:31 AM EST  
**To:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>, "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>, "Weinstock, Lewis" <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>, "DeLuca, Isabel" <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>, "Rimer, Kelly" <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>  
**Cc:** "Tsirigotis, Peter" <[Tsirigotis.Peter@epa.gov](mailto:Tsirigotis.Peter@epa.gov)>, "Noonan, Jenny" <[Noonan.Jenny@epa.gov](mailto:Noonan.Jenny@epa.gov)>  
**Subject:** Fwd: IL EPA - Draft internal

Rough draft - **Personal Privacy / Ex. 6** Here are some thoughts.

## Deliberative Process / Ex. 5

Working on a couple of Qs

Sent from my iPhone

Begin forwarded message:

**From:** "Konkus, John" <[konkus.john@epa.gov](mailto:konkus.john@epa.gov)>  
**Date:** February 16, 2019 at 9:06:56 AM EST  
**To:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Cc:** "Wehrum, Bill" <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>, "Harlow, David" <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>, "Lewis, Josh" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>, "Tsirigotis, Peter" <[Tsirigotis.Peter@epa.gov](mailto:Tsirigotis.Peter@epa.gov)>, "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>, "Davis, Alison" <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>, "DeLuca, Isabel"

<DeLuca.Isabel@epa.gov>, "Jackson, Ryan" <jackson.ryan@epa.gov>

**Subject: Re: IL EPA**

Can OAR / R5 develop a desk statement OPA can have on hand please?

On Feb 16, 2019, at 6:27 AM, Woods, Clint <woods.clint@epa.gov> wrote:

[www.chicagotribune.com/news/local/breaking/ct-met-pritzker-sterigenics-shutdown-willowbrook-20190215-story,amp.html](http://www.chicagotribune.com/news/local/breaking/ct-met-pritzker-sterigenics-shutdown-willowbrook-20190215-story,amp.html)

On Feb 15, 2019, at 7:15 PM, Wehrum, Bill  
<Wehrum.Bill@epa.gov> wrote:

FYI

---

Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

Begin forwarded message:

**From:** "Macnabb, Philip"  
<PMacnabb@sterigenics.com>  
**Date:** February 15, 2019 at 7:12:16  
PM EST  
**To:** "Wehrum.Bill@epa.gov"  
<Wehrum.Bill@epa.gov>  
**Cc:** "tcr@vnf.com" <tcr@vnf.com>  
**Subject: IL EPA**

Bill

I wanted to make you aware that tonight at 5pm we received a "seal order" from IL EPA to stop using EO due to public health crisis. We will stop processing until we can get in front of a judge.

Feel free to call my cell at Personal Phone / Ex. 6 if you would like further details.

Sent from my iPhone  
This e-mail and any files transmitted with it may contain privileged and/or confidential information. If you believe this e-mail or any of its attachments were not intended for

you, you must not use, distribute, forward, print or copy this e-mail or any attached files. If you have received this e-mail in error, please notify the sender by reply e-mail and then immediately delete the email and all attachments.

## Message

**From:** Atkinson, Emily [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BB2155ADEF6A44AEA9410741F0C01D27-ATKINSON, EMILY]  
**Sent:** 2/15/2019 8:17:23 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**CC:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]; DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** Calendar for Tuesday, 2/19

---

**Wehrum, Bill Calendar**

Wehrum.Bill@epa.gov

On Tuesday, February 19, 2019

Time zone: (UTC-05:00) Eastern Time (US & Canada)

(Adjusted for Daylight Saving Time)







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**February 2019**

Su Mo Tu We Th Fr Sa

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					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	<b>19</b>	20	21	22	23
24	25	26	27	28		

 Busy	 Tentative	 Free
 Out of Office	 Working Elsewhere	 Outside of Working Hours

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**February 2019**

▲ **Tue, Feb 19**

<input type="checkbox"/>	All Day	<u>CWD: Emily Atkinson</u>	
<input type="checkbox"/>	<b>Before 8:00 AM</b>	<b>Free</b>	
<input type="checkbox"/>	<b>8:00 AM – 9:00 AM</b>	<b>Free</b>	
<input checked="" type="checkbox"/>	9:00 AM – 9:30 AM	<u>Management Roundtable</u> WJC - N 5400 + <span>Personal Phone / Ex. 6</span>	
		<span>Personal Phone / Ex. 6</span> Wehrum, Bill	
<input checked="" type="checkbox"/>	9:30 AM – 10:30 AM	<u>Alex Dunn Swearing-In</u> Green Room Dunn, Alexandra	
<input checked="" type="checkbox"/>	10:30 AM – 11:00 AM	<u>LD GHG Meeting</u> WJC - N 5400 + Video with AA <span>Personal Phone / Ex. 6</span> Wehrum, Bill	
<input checked="" type="checkbox"/>	11:00 AM – 12:00 PM	<u>SES A3 Discussion</u> WJC - N 5400 Wehrum, Bill	
<input type="checkbox"/>	<b>12:00 PM – 1:00 PM</b>	<b>Free</b>	
<input checked="" type="checkbox"/>	1:00 PM – 1:30 PM	<u>Call with Phil MacNabb re: Sterigenics</u> WJC - N 5400 + <span>Personal Phone / Ex. 6</span>	
<input type="checkbox"/>	<b>1:30 PM – 2:00 PM</b>	<b>Free</b>	
<input checked="" type="checkbox"/>	2:00 PM – 3:00 PM	<u>Senior Staff Meeting</u> Alm Room <span>Personal Phone / Ex. 6</span>	
<input checked="" type="checkbox"/>	3:00 PM – 4:00 PM	<u>Briefing: Steam Electric Rule Options Selection</u> Alm Room <span>Personal Phone / Ex. 6</span>	
<input checked="" type="checkbox"/>	4:00 PM – 5:30 PM	<u>Call with Region 8 re: Uinta Basin air quality follow up</u> WJC - N 5400 + Video with Region 8 + <span>Personal Phone / Ex. 6</span> Wehrum, Bill	
<input type="checkbox"/>	<b>5:30 PM – 6:00 PM</b>	<b>Free</b>	
<input type="checkbox"/>	<b>After 6:00 PM</b>	<b>Free</b>	

---

## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 2/15/2019 5:49:05 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]  
**Subject:** EtO  
**Attachments:** 2019.02.15 - Letter to EPA Air & Radiation Division re EtO Air Monitoring in Lake Co.pdf

Hi all,

I expect you've seen the latest Congressional requesting ambient air monitoring in Lake County, IL, but in case not it's attached.

I mainly just wanted to flag a [blog NRDC posted yesterday](#) calling out 18 counties across the US shown in NATA to have high EtO risk. It's getting some traction on Twitter (with maps)..

Example Twitter post:

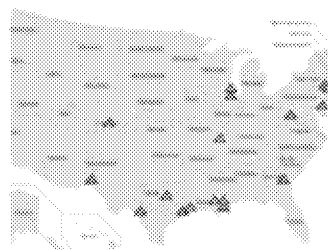


**Neringa Zymancius**  
 @NLVZ1834

Follow

This is not a Willowbrook issue, this is a National Crisis. We are all under a chemical attack, by the chemical industry. For corporations like @Sterigenics1 to keep operating, just so @epa can make sure that we are truly being poisoned is reckless endangerment. @NRDC lays it out

Over 200,000 people live in the monitoring tracts across the country that EPA identified to be at elevated risk of EtO exposure, and nine counties have facilities that are emitting more EtO than the Sterigenics Willowbrook facility. This is not a singular issue affecting one suburb of Chicago, it's a national issue that begs EPA action in how it monitors and regulates air toxics in general.



9:30 AM · 15 Feb 2019

3 Retweets 2 Likes



2 Karina Harris, NBC Nightly News with Lester Holt, Rachel Maddow MSNBC and 7 others

Isabel DeLuca  
 Office of Air and Radiation, US EPA

(202) 343-9247

**Congress of the United States**  
**Washington, DC 20515**

February 15, 2019

Mr. Bill Wehrum  
Assistant Administrator  
Air and Radiation Division  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Assistant Administrator Wehrum:

We write to you to reiterate our concern about the industrial usage of ethylene oxide (EtO) in Lake County, IL, and urge you to begin monitoring for EtO in the communities near Medline Industries, Inc. in Waukegan, IL, and Vantage Specialty Chemicals, Inc. in Gurnee, IL, immediately. As underscored by the deeply alarming data published last week by the U.S. Environmental Protection Agency (EPA) on ambient air levels of EtO in Willowbrook due to the Sterigenics facility, this remains a critical issue to us—and to our constituents who live near facilities that emit EtO.

The divergence between the self-reported emissions data and recently-released ambient air data in Willowbrook makes clear that we cannot rely on self-reported data from EtO-emitting facilities alone to determine the risk local communities face. EPA's monitoring showed that, despite taking significant steps to mitigate fugitive emissions, ambient EtO levels were as high as 350 times the allowable threshold around the Sterigenics facility. As a result, we demand EPA immediately begin ambient air monitoring for the two facilities in Lake County. Our constituents deserve to know more about emissions in their backyard and we see absolutely no reason for further delay.

Although we appreciate that EPA has been working with the two facilities in Lake County that use EtO to assess their emissions levels, we are disappointed the EPA has not yet begun ambient air monitoring in the areas surrounding these facilities. It is essential that EPA provide the local communities with more information—as quickly as possible—about ambient EtO levels. Our constituents deserve greater assurance that the air they breathe is safe.

There are approximately 23,000 constituents living near these facilities—we cannot stress the urgency with which we view this issue. We appreciate your consideration of our

concerns and expect you to act with the necessary expediency that this situation merits.  
Please do not hesitate to contact our staff should you have any questions.

Sincerely,



Bradley S. Schneider  
Member of Congress



Tammy Duckworth  
United States Senator



Lauren Underwood  
Member of Congress



Richard J. Durbin  
United States Senator

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 3/4/2019 8:29:56 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** FW: Draft products for Willowbrook web posting  
**Attachments:** 022619 v1 Willowbrook EtO Master Data Table for Web.xlsx; Willowbrook EtO working slides Jan 22 thru Feb 11.pptx

Here is the next set of data to be posted (Jan 22 thru Feb 11). We will discuss this with OAR on the next ethylene oxide check-in call (Wednesday, 10:00 am).

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Please let me know if you have any questions.

Mike

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 3/6/2019 1:26:28 PM  
**To:** OAR Briefings [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2da922b09b7a4a18a19571005bff0297-OAR Briefin]  
**CC:** Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Ward, Hillary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=43fd96e0b15a4d52bd61f7e25efd3ccd-HWARD]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Smith, Darcie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3ae3c2377efb42879b943db8796ddc05-Smith, Darcie]; Bremer, Kristen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7ad6f4a11064ef08cb03aec9dc8e892-KBREMER]  
**Subject:** BRIEFING MATERIALS: Ethylene oxide check-in (Wednesday, March 6)  
**Attachments:** 022619 v1 Willowbrook EtO Master Data Table for Web.xlsx; Willowbrook EtO working slides Jan 22 thru Feb 11.pptx; EPA Samples - Weather and Operating Data -28 Feb 2019.pdf; Draft timeline - 2.0.xlsx

Here is an agenda for today's meeting:

# Deliberative Process / Ex. 5

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/27/2018 4:07:21 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]  
**Subject:** RE: - FW: DRAFT DELIBERATIVE.Shutdown question.docx  
**Attachments:** 303q&a.docx

Clint,

**Deliberative Process / Ex. 5**

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Harlow, David  
**Sent:** Thursday, December 27, 2018 10:29 AM  
**To:** Woods, Clint <woods.Clint@epa.gov>; Schwab, Justin <schwab.justin@epa.gov>  
**Subject:** RE: - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Clint,

**Deliberative Process / Ex. 5**

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**

1200 Pennsylvania Avenue NW  
Washington, DC 20460  
202-564-1233  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Woods, Clint  
**Sent:** Thursday, December 27, 2018 10:06 AM  
**To:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Schwab, Justin <[schwab.justin@epa.gov](mailto:schwab.justin@epa.gov)>  
**Subject:** Fwd: - FW: DRAFT DELIBERATIVE.Shutdown question.docx

You all have any feedback?

Begin forwarded message:

**From:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Date:** December 27, 2018 at 10:05:28 AM EST  
**To:** "Lewis, Josh" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>, "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** FW: - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Josh, Clint: We are working on another batch of Q&As for the website **Deliberative Process / Ex. 5**  
**Deliberative Process / Ex. 5** Here is what we sent to OAR a couple weeks ago – see below and attachment. My understanding is that David and Justin were planning to review. Let me know if there is any feedback on the draft response – either the shorter version of the attached longer version. Thanks.

Mike

---

**From:** Davis, Alison  
**Sent:** Thursday, December 13, 2018 11:58 AM  
**To:** Lewis, Josh <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Cc:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>  
**Subject:** - FW: DRAFT DELIBERATIVE.Shutdown question.docx  
**Importance:** High

Josh – please see Mike Thrift's comments. **Deliberative Process / Ex. 5**

**Deliberative Process / Ex. 5**

---

**From:** Thrift, Mike  
**Sent:** Thursday, December 13, 2018 11:48 AM  
**To:** Rodman, Sonja <[Rodman.Sonja@epa.gov](mailto:Rodman.Sonja@epa.gov)>; Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Doster, Brian <[Doster.Brian@epa.gov](mailto:Doster.Brian@epa.gov)>  
**Subject:** RE: Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Here are some suggested edits in the attached, and explanations for them:

# Attorney Client / Ex. 5

---

**From:** Rodman, Sonja  
**Sent:** Thursday, December 13, 2018 7:03 AM  
**To:** Thrift, Mike <[thrift.mike@epa.gov](mailto:thrift.mike@epa.gov)>  
**Subject:** Fwd: Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown question.docx

Mike, can you look at this?

Sent from my iPhone

Begin forwarded message:

**From:** "Davis, Alison" <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>  
**Date:** December 13, 2018 at 9:58:31 AM EST  
**To:** "Rodman, Sonja" <[Rodman.Sonja@epa.gov](mailto:Rodman.Sonja@epa.gov)>  
**Subject:** Per my voicemail - FW: DRAFT DELIBERATIVE.Shutdown question.docx

---

**From:** Davis, Alison  
**Sent:** Wednesday, December 12, 2018 6:40 PM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Subject:** DRAFT DELIBERATIVE.Shutdown question.docx

As requested. For your review.

Appointment

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/13/2018 5:02:52 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Accepted: Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**Location:** WJC - N 5400 + conference call  
  
**Start:** 12/13/2018 5:30:00 PM  
**End:** 12/13/2018 6:00:00 PM  
  
**Recurrence:** (none)

Appointment

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/13/2018 5:02:49 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**Location:** WJC - N 5400 + conference call  
  
**Start:** 12/13/2018 5:30:00 PM  
**End:** 12/13/2018 6:00:00 PM  
**Show Time As:** Tentative

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Wednesday, December 12, 2018 3:47 PM  
**To:** Wehrum, Bill; Davis, Alison; Mike Koerber (Koerber.Mike@epa.gov)  
**Subject:** Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**When:** Thursday, December 13, 2018 12:30 PM-1:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + conference call

**Personal Phone / Ex. 6**

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/20/2019 7:30:13 PM  
**To:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Re: Latest Willowbrook table and maps

Mike,

Thanks. I've printed out hard copies of most of this material.

Sent from my iPhone

On Feb 20, 2019, at 2:22 PM, Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)> wrote:

Just making sure you have this – for today's 2:30 call.

---

**From:** Davis, Alison  
**Sent:** Wednesday, February 13, 2019 5:57 PM  
**To:** Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Cc:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Weinstock, Lewis <[Weinstock.Lewis@epa.gov](mailto:Weinstock.Lewis@epa.gov)>  
**Subject:** FW: Latest Willowbrook table and maps

Hi Clint,  
 Just checking in to see where we are on approval for posting this data. We'll adjust the shading/footnotes on the table, given that we are not updating any values with this posting.

Also, FYI, the Village of Willowbrook reached out to request a call about their monitoring data (they have been conducting monitoring also). That call has been scheduled for tomorrow.

Thanks.  
 Alison

---

**From:** Koerber, Mike  
**Sent:** Wednesday, February 13, 2019 11:52 AM  
**To:** Davis, Alison <[Davis.Alison@epa.gov](mailto:Davis.Alison@epa.gov)>; Cortelyou-Lee, Jan <[Cortelyou-Lee.Jan@epa.gov](mailto:Cortelyou-Lee.Jan@epa.gov)>; Bremer, Kristen <[Bremer.Kristen@epa.gov](mailto:Bremer.Kristen@epa.gov)>  
**Subject:** Fwd: Latest Willowbrook table and maps

Sent from my iPhone

Begin forwarded message:

**From:** "Koerber, Mike" <Koerber.Mike@epa.gov>  
**Date:** February 12, 2019 at 3:59:51 PM EST  
**To:** "Josh Lewis (Lewis.Josh@epa.gov)" <Lewis.Josh@epa.gov>  
**Cc:** "Woods, Clint" <woods.Clint@epa.gov>  
**Subject:** FW: Latest Willowbrook table and maps

Josh – Please print a copy of the spreadsheet for Bill.

**Deliberative Process / Ex. 5**

**Deliberative Process / Ex. 5**

Also, I'd like to get 30 minutes to talk with Bill and Clint over the next few days to discuss next steps on monitoring. We are only planning to sample through the end of the month and need to make decisions soon if we want to extend the monitoring.

Mike

---

**From:** Weinstock, Lewis  
**Sent:** Tuesday, February 12, 2019 3:17 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Chen, Xi <Chen.Xi@epa.gov>; McBrien, Jenia <McBrien.Jenia@epa.gov>; Noah, Greg <Noah.Greg@epa.gov>; Thurman, James <Thurman.James@epa.gov>  
**Subject:** Latest Willowbrook table and maps

Hi Mike:

Attached are the latest data for the Willowbrook study – thanks to Doris and Greg for the data review and to James for the wind roses. I used the webinar slide deck for the update so the file is all inclusive. The study's EtO averages to date are updated through January 17, 2019.

Please let us know if you have any questions. Do you want me to forward this information to the technical folks in Region 5 (Compher, Nwia) for their inspection?

Lewis Weinstock | Group Leader | Ambient Air Monitoring Group | Air Quality Assessment Division -  
 Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection  
 Agency | Research Triangle Park, NC 27711 | Phone: 919-541-3661|

<021219 v1 Willowbrook EtO Master Data Table for Web.xlsx>

<Willowbrook EtO working slides Feb 12 2019.pptx>

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/27/2019 7:44:36 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]  
**CC:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Re: Willowbrook Monitoring

Bill & Clint,

# Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 27, 2019, at 12:34 PM, Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)> wrote:

Bill,

Any concerns? This makes sense to me.

Begin forwarded message:

**From:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Date:** February 27, 2019 at 12:24:41 PM EST  
**To:** "Harlow, David" <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>, "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Cc:** "Lewis, Josh" <[Lewis.Josh@epa.gov](mailto:Lewis.Josh@epa.gov)>  
**Subject:** Willowbrook Monitoring

# Deliberative Process / Ex. 5

Mike

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 9/27/2018 3:20:56 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**CC:** Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**Subject:** Revised Sterigenics/Willowbrook letter  
**Attachments:** dshRLSOEtO Willowbrook response Draft 5\_.docx

Attached is an RLSO of the draft Willowbrook letter, hardcopies of which Alex distributed at this morning's roundtable. The underlying document is that earlier redlined draft, for which I "accepted all changes" and then further edited.

# Deliberative Process / Ex. 5

David S. Harlow  
Senior Counsel  
Immediate Office of the Assistant Administrator  
Office of Air and Radiation, USEPA  
WJC-N Room 5409K  
1200 Pennsylvania Avenue NW  
Washington, DC 20460  
202-564-1233  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/6/2019 2:15:53 PM  
**To:** DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**CC:** Millett, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c067caa6c93544f78c26ab08cc567d27-Millett, John]  
**Subject:** RE: News clips

Isabel,

Thank you for this.

And, to complete the picture to the moment, here's, well, a picture – *i.e.*, a screen grab from the top of the “Stop Sterigenics” Facebook page.

+ Join Group
... More
Join this group to post and comment.

---

## Announcements

See All (21)

**Stop Sterigenics**  
 11 mins

Like Page

**DEMAND ACTION NOW**

Governor JB Pritzker has the executive power to declare a health crisis and shutdown Sterigenics. He promised us that he would protect us. Now we know it's worse, and he is passing the buck to the USEPA. It's time to fulfill that promise.

JB Pritzker, Governor of Illinois  
 Chicago Phone: 312-814-2121  
 Springfield Phone: 217-782-6830 or 217-782-6831  
 Email: <https://www2.illinois.gov/.../gov/contactus/pages/default.aspx>

**JB Pritzker**  
 @JPritzker

Following

Sterigenics should be completely shut down until we determine it can operate safely. Our top priority must always be keeping communities safe.

**Stop Sterigenics** @StopSterigenics

Good question. @JPritzker where do you stand on the cancer causing emissions from #Sterigenics? You've condemned @GovRauner for taking so long to act, but we have yet to hear about your plan and stance on this important #health issue. [twitter.com/Susan21167672/...](https://twitter.com/Susan21167672/)

### GROUP BY

**Stop Sterigenics**  
 899 like this

---

### DESCRIPTION

Please visit [www.stopsterigenics.com](http://www.stopsterigenics.com) for more information.

The ... See More

### GROUP TYPE

Support

---

### LOCATION

Willowbrook, Illinois

---

### RECENT GROUP FILES

**PressRelease.2.5.19..pdf**  
 Updated 18 hours ago

See More

### CREATE NEW

Groups m

Chat

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
**[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)**

**From:** DeLuca, Isabel  
**Sent:** Wednesday, February 6, 2019 9:11 AM  
**To:** Harlow, David <harlow.david@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.Clint@epa.gov>  
**Cc:** Millett, John <Millett.John@epa.gov>  
**Subject:** News clips

Today's clips on Willowbrook (Hawthorne piece at bottom):

**EPA finds high levels of cancer-causing chemicals near suburban Sterigenics plant**

ChicagoLand TV (CLTV) – Online  
<https://wgntv.com/2019/02/05/epa-finds-high-levels-of-cancer-causing-chemicals-near-suburban-sterigenics-plant/>

**Lipinski calls for public forum about Sterigenics plant**

Shaw Media Online  
<https://www.mysuburbanlife.com/2019/02/04/lipinski-calls-for-public-forum-about-sterigenics-plant/a2vnm6i/>

**EPA Results Show Ethylene Oxide Concentrations Around Willowbrook**

Burr Ridge Patch  
<https://patch.com/illinois/burrridge/epa-results-show-ethylene-oxide-concentrations-around-willowbrook>

**Willowbrook residents call for Sterigenics shutdown after latest tests**

ABC7 Chicago  
<https://abc7chicago.com/health/willowbrook-residents-call-for-sterigenics-shutdown-after-latest-tests-/5122909/>

**Sterigenics emits alarming levels of cancer-causing gas in Willowbrook, EPA says, but more evidence needed to act**

Chicago Tribune Online (Hawthorne article)  
<https://www.chicagotribune.com/news/local/breaking/ct-met-epa-sterigenics-ethylene-oxide-testing-cancer-20190205-story.html>

This one was also on the front page of the Chicago Tribune:



Message

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**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**on behalf of** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP  
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 12/18/2018 12:11:20 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: EPA webinar: Update on Ethylene Oxide Monitoring in Willowbrook, Illinois  
**Attachments:** EPA webinar: Update on Ethylene Oxide Monitoring in Willowbrook, Illinois

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/12/2018 5:00:59 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** Sterigenics FOIA

Bill & Clint,

# Deliberative Process / Ex. 5

Tracking Number	Type	Requester	Requester Organization	Received Date	Due Date	Phase	Detail
<a href="#">EPA-HQ-2019-002105</a>	Request	Rachel Cuccias	FOIA Professional Services	12/12/2018	01/11/2019	Assignment	---

Hello,

I submitted this same request in August and it was closed as a "Duplicate" request. Region 5 of the EPA is handling the request currently but HQ closed it. Upon further research and discussion with Region 5, I do believe that HQ also has responsive documents. I believe that both HQ and Office of Air Quality Planning and Standards (OAQPS) which is located in Research Triangle Park, North Carolina is also involved. Please see my request:

1. All documents regarding EPA's air dispersion modeling for ethylene oxide from or near the Sterigenics facility in Willowbrook, Illinois ("Sterigenics Facility"), including but not limited to copies of input and output modeling, any visualizations created, and any summaries created.
2. All documents regarding the monitoring of ethylene oxide concentrations in air near the Sterigenics Facility, including but not limited to work plans, Quality Assurance Project Plans for equivalent documents, all documents sent to or received from the analytical laboratory, data packages, chromatograms, and any documents summarizing or reporting the results. This includes the air samples taken in May 2018 by EPA and described in the attached ATSDR's Letter Health Consultation for Sterigenics International, Inc., Willowbrook, Illinois, dated August 21, 2018.
3. All communications mentioning ethylene oxide and/or Sterigenics, to or from any of the following: the Village of Willowbrook, Illinois; Village of Burr Ridge; Village of Clarendon Hills; City of Darien; Village of Hinsdale; Village of Westmont; Gower School District 62; or Hinsdale Township High School District 86. (Based on Keiser/GWC FOIA and Leopoldo FOIA 1.)
4. All communications between or among EPA, ATSDR, and the State of Illinois regarding the Sterigenics Facility from January 1, 2017 to the present.
5. All FOIA requests regarding the Sterigenics Facility by anyone else and EPA's responses to same.

**David S. Harlow**  
**Senior Counsel**

Immediate Office of the Assistant Administrator  
Office of Air and Radiation, USEPA  
WJC-N Room 5409K  
1200 Pennsylvania Avenue NW  
Washington, DC 20460  
202-564-1233  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/18/2018 12:05:46 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** FYI

<https://insideepa.com/daily-news/despite-past-filings-sterigenics-avoids-filing-reports-epas-tri>

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Appointment

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 11/28/2018 4:27:04 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: NATA briefing for Lake County Elected Officials  
**Attachments:** Details and VTC for 11/28 meeting  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Show Time As:** Tentative

## -----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Tuesday, November 27, 2018 11:01 AM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Deamer, Eileen  
**Cc:** Nam, Ed; Kelley, Jeff; Siegel, Kathryn; Cain, Alexis; Fortin, Denise; Engelmann, Robert; James Payne (payne.james@epa.gov); Kurt Thiede (thiede.kurt@epa.gov)  
**Subject:** NATA briefing for Lake County Elected Officials  
**When:** Wednesday, November 28, 2018 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer  
**CC:** Alison Davis, Eileen Deamer



Details and VTC  
 for 11/28 meeting

Appointment

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/4/2018 12:31:26 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Accepted: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
  
**Recurrence:** (none)

Appointment

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/4/2018 12:31:24 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: Meeting re: Willowbrook samples  
**Attachments:** Re: Willowbrook samples Nov 14-20 - All spreadsheets  
**Location:** WJC - N 5400 + Video with RTP Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Tentative

## -----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Monday, December 3, 2018 12:39 PM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Smith, Darcie; Weinstock, Lewis; Bremer, Kristen; Chen, Xi  
**Subject:** Meeting re: Willowbrook samples  
**When:** Tuesday, December 4, 2018 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with RTP + Personal Phone / Ex. 6

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer



Re: Willowbrook  
 samples Nov 14-...

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/20/2019 12:37:13 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**Subject:** "Lake County residents push Trump, Pritzker EPAs for protection from same cancer-causing gas that shut down Sterigenics."

<https://www.chicagotribune.com/news/local/breaking/ct-met-ethylene-oxide-cancer-waukegan-gurnee-20190218-story.html>

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Appointment

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**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Sent:** 11/9/2018 2:10:58 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Accepted: Canceled: Phone call with Phil Macnabb re: Sterigenics (confirmed)  
**Location:** WJC - N 5400 Personal Phone / Ex. 6  
**Start:** 11/12/2018 9:00:00 PM  
**End:** 11/12/2018 9:30:00 PM  
**Show Time As:** Busy

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 10/3/2018 2:04:08 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** More of same.

<http://www.chicagotribune.com/news/local/breaking/ct-met-bruce-rauner-sterigenics-shutdown-20181002-story.html>

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Appointment

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**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Sent:** 11/7/2018 7:51:02 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Accepted: HOLD || Meeting with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 Personal Phone / Ex. 6  
**Start:** 11/13/2018 1:45:00 PM  
**End:** 11/13/2018 2:15:00 PM  
**Show Time As:** Busy

Message

---

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 10/2/2018 7:54:25 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]  
**Subject:** I assume you're aware of this already. I just saw it.

## Illinois EPA Seeks Order To Stop Sterigenics Operations

October 2, 2018

<https://patch.com/illinois/burrridge/illinois-epa-seeks-order-stop-sterigenics-operations>

WILLOWBROOK, IL — The Illinois EPA is seeking an order directing Sterigenics to stop operations until a full review of the additional modeling and risk assessment can be completed or until the U.S. EPA can assure the community that Sterigenics' operations pose no elevated health risks. According to the agency, the Illinois EPA has referred an enforcement action to the Illinois Attorney General's Office against Sterigenics, based on the findings of the Agency for Toxic Substances and Disease Registry.

The agency said on Sept. 28 Illinois officials and local community representatives met with U.S. EPA to discuss the status of U.S. EPA's ongoing evaluation and testing at Sterigenics. According to the agency, while progress has been made, it will take weeks or months before U.S. EPA will be in a position to provide an updated risk assessment and propose any resulting changes to relevant regulations.

At an event on Tuesday, State Sen. John Curran also called for Sterigenics to cease operations.

"I commend the Illinois EPA for demanding Sterigenics act responsibly and temporarily halt operations," said Curran. "I've been in constant communication with the Governor's office and officials within the EPA throughout this entire ordeal and to have their support is critical."

In addition to the agency requesting an order to stop Sterigenics from continuing operations, the agency requests, as an alternative, the Attorney General's Office pursue a

violation of Section 9(a) of the Illinois Environmental Protection Act. Illinois EPA said it also requests Sterigenics pursue EtO emission limits for the Willowbrook facility that would be memorialized in an amended permit.

"Despite area residents demanding action and answers, Sterigenics has remained unresponsive. They are determined to place business before the health and wellbeing of those in the community. Enough is enough," said Curran. "This letter is a definitive call to action, ensuring that no further harm comes to the people of Willowbrook or surrounding areas."

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/13/2019 5:12:33 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]  
**CC:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Lubetsky, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e125d09a658e48119789ccae5712b4a5-JLUBETSK]  
**Subject:** Re: Clint's December & January Calendar (for FOIA)

Jessie,

Thank you. I'm sure that Clint will let you know when he's re-worked the two calendars.

Sent from my iPhone

On Feb 13, 2019, at 8:55 AM, Mroz, Jessica <mroz.jessica@epa.gov> wrote:

That's probably the best way to remove the irrelevant/non-responsive meetings. Thanks, Clint. Just let us know when we can pull the calendar.

## Deliberative Process / Ex. 5

Best,  
 Jessie

**Jessica C. Mroz**  
 Office of Air Policy and Program Support  
 U.S. Environmental Protection Agency  
 Telephone: (202) 564-1094

---

**From:** Woods, Clint  
**Sent:** Tuesday, February 12, 2019 8:48 PM  
**To:** Harlow, David <harlow.david@epa.gov>  
**Cc:** Mroz, Jessica <mroz.jessica@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>  
**Subject:** Re: Clint's December & January Calendar (for FOIA)

I think David is right - If you all don't mind, I'll update for December & January to reflect shutdown reality in the next day

On Feb 12, 2019, at 5:44 PM, Harlow, David <harlow.david@epa.gov> wrote:

Jessie,

## **Deliberative Process / Ex. 5**

Thanks.

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

---

**From:** Mroz, Jessica  
**Sent:** Tuesday, February 12, 2019 5:15 PM  
**To:** Harlow, David <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>; Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>  
**Cc:** Lubetsky, Jonathan <[Lubetsky.Jonathan@epa.gov](mailto:Lubetsky.Jonathan@epa.gov)>  
**Subject:** Clint's December & January Calendar (for FOIA)

Good Evening,

I have attached Clint's December and January calendars for your review, in response to FOIA EPA-HQ-2019-002949 from E&E News.

Please let me know if either of you have any concerns with this release.

Best,  
Jessie

**Jessica C. Mroz**  
Office of Air Policy and Program Support  
U.S. Environmental Protection Agency  
Telephone: (202) 564-1094

Message

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/19/2019 6:02:26 PM  
**To:** Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**Subject:** OTAQ Weekly

I'm in with Bill – Sterigenics call – since Clint's not back. Will join the OTAQ call thereafter, if it's still on.

Sent from my iPhone

Appointment

---

**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Sent:** 2/4/2019 3:01:34 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]  
**Subject:** Accepted: Phone call with Phil MacNAbb re: Sterigenics  
**Location:** WJC - N 5400 Personal Phone / Ex. 6  
**Start:** 2/4/2019 4:30:00 PM  
**End:** 2/4/2019 5:00:00 PM  
**Show Time As:** Busy

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 2/4/2019 1:48:35 PM  
**To:** Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]  
**Subject:** Fwd: For your review - Updated data posting schedule and draft Web language/ Qs & As

Sent from my iPhone

Begin forwarded message:

**From:** "Wehrum, Bill" <[Wehrum.Bill@epa.gov](mailto:Wehrum.Bill@epa.gov)>  
**Date:** February 1, 2019 at 6:29:12 PM EST  
**To:** "Woods, Clint" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Cc:** "Harlow, David" <[harlow.david@epa.gov](mailto:harlow.david@epa.gov)>, "Schwab, Justin" <[Schwab.Justin@epa.gov](mailto:Schwab.Justin@epa.gov)>  
**Subject:** Re: For your review - Updated data posting schedule and draft Web language/ Qs & As

Let's talk on Monday. I'm available over the weekend if needed.

---

Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

On Feb 1, 2019, at 5:36 PM, Woods, Clint <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)> wrote:

Bill,

Below is draft internal response for Q-and-A for shutdown question for your review –  
Let me know if you see red flags.

**Deliberative Process / Ex. 5**

## Deliberative Process / Ex. 5

---

**From:** Davis, Alison

**Sent:** Friday, February 1, 2019 4:21 PM

**To:** Woods, Clint <[woods.Clint@epa.gov](mailto:woods.Clint@epa.gov)>

**Cc:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Rimer, Kelly <[Rimer.Kelly@epa.gov](mailto:Rimer.Kelly@epa.gov)>

**Subject:** For your review - Updated data posting schedule and draft Web language/ Qs & As

Hi Clint,

We've updated the schedule for next week's heads up and posting (see attached). Please review and let me know if you're OK with this.

## Deliberative Process / Ex. 5

Thanks!

Alison

<December data rollout schedule.DRAFT.docx>

<DELIBERATIVE - Draft Web language and Qs &As for Clint review.docx>

Message

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**From:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**on behalf of** Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]  
**Sent:** 2/19/2019 12:17:02 PM  
**To:** Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]  
**Subject:** FW: Call with Phil MacNabb re: Sterigenics  
**Attachments:** Call with Phil MacNabb re: Sterigenics

## Message

**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 3/1/2019 4:38:14 PM  
**To:** Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]  
**Subject:** Just for your awareness

Some of the most recent posts on the Stop Sterigenics Facebook page.

## Announcements

See All (12)



Stop Sterigenics shared a link.  
February 27 at 11:29 AM

Like Page

## ACTION ALERT – 2-27-19

The USEPA is pulling a fast one again. They have a proposed rule for an UNRELATED chemical and are asking for comment on Ethylene Oxide. Another handshake for their industry friends.

Use the link below to ask the USEPA to recognize the dangers of Ethylene Oxide and to ban EtO emissions in the United States. Ask them to use real science and not industry propaganda in their decision making.

Our goal is 200 comments from our community

Contact the EPA through email, mail or fax. PLEASE SHARE WITH EVERYONE! This is for national comment. Don't tell us it's safe. Shut it down!

- Email: [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov). Include Docket ID No. EPA-HQ-OAR-2018-0417 in the subject line of the message.
- Fax: (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2018-0417.
- Mail: To ship or send mail via the United States Postal Service, use the following address: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2018-0417, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

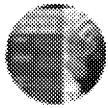
<https://www.regulations.gov/searchResults...>

REGULATIONS.GOV

**[www.regulations.gov](http://www.regulations.gov)**

54

40 Comments 46 Shares



**Lauren Kaeseberg** shared a post.

February 27 at 8:06 AM



Let's use our collective power and document. If you drive by Sterigenics & see trucks, people, stacks venting, or anything suspicious, TAKE A PICTURE. Take note of date/time and put it in comments here, send it via PM or to [Stopsterigenics@gmail.com](mailto:Stopsterigenics@gmail.com).



View 4 more comments



**Robert Thomas** Senator Duckworth, let me give you props in an indirect way by re-introducing you to your diametrical opposite. He is the most nakedly obvious industry tool ever spotted in the halls of government. He is destroying lives and the legitimacy of the United States government simply to double his billing rate when he returns to the practice of 'environmental law'. Crush him.



Like · 19h

**David S. Harlow**  
**Senior Counsel**  
**Immediate Office of the Assistant Administrator**  
**Office of Air and Radiation, USEPA**  
**WJC-N Room 5409K**  
**1200 Pennsylvania Avenue NW**  
**Washington, DC 20460**  
**202-564-1233**  
[Harlow.David@epa.gov](mailto:Harlow.David@epa.gov)

Appointment

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**Sent:** 3/12/2019 1:48:57 PM  
**To:** Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Mike Koerber (Koerber.Mike@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Mike Koerber (Koerber.Mike@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Weinstock, Lewis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df30e068efb24a24b35d63be0596ad9b-LWEINS02]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]  
**Subject:** General Discussion re: Lake County  
**Location:** WJC-N 5406 + Video to RTP  
**Start:** 3/12/2019 6:00:00 PM  
**End:** 3/12/2019 6:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rimer, Kelly [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=123A21A46D0E4E53A590798CDCC3FB47-KRIMER]  
**Sent:** 12/4/2018 9:29:27 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP Personal Privacy / Ex. 6  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Recurrence:** (none)

Appointment

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**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/4/2018 9:21:04 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP + **Personal Privacy / Ex. 6**  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 9:18:55 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP Personal Privacy / Ex. 6  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 9:18:46 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP **Ex. 6/Personal Privacy**  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 9:18:46 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP {Ex. 6/Personal Privacy}  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer

Appointment

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**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 12/4/2018 8:18:08 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 **Ex. 6/Personal Privacy**  
**Start:** 12/10/2018 10:00:00 PM  
**End:** 12/10/2018 10:30:00 PM  
**Show Time As:** Busy

Appointment

---

**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 8:17:47 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/10/2018 10:00:00 PM  
**End:** 12/10/2018 10:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 8:17:47 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/10/2018 10:00:00 PM  
**End:** 12/10/2018 10:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Weinstock, Lewis [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DF30E068EFB24A24B35D63BE0596AD9B-LWEINS02]  
**Sent:** 12/4/2018 7:42:32 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Declined: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP + 

**Personal Phone / Ex. 6**

  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
  
**Recurrence:** (none)

## Message

**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 12/4/2018 4:57:01 PM  
**To:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** RE: Data Request Letter

Thanks – Let's talk about it at 3:30

---

**From:** Koerber, Mike  
**Sent:** Tuesday, December 4, 2018 11:04 AM  
**To:** Woods, Clint <woods.clint@epa.gov>  
**Cc:** Lewis, Josh <Lewis.Josh@epa.gov>  
**Subject:** Fwd: Data Request Letter

Clint - We discussed this verbally with Kathy, but thought it would be helpful to put it in writing. Let me know if you're okay with the letter. We can discuss at 3:30 pm today, if you wish.

Mike

Sent from my iPhone

Begin forwarded message:

**From:** "Shappley, Ned" <[Shappley.Ned@epa.gov](mailto:Shappley.Ned@epa.gov)>  
**Date:** December 4, 2018 at 10:37:57 AM EST  
**To:** "Koerber, Mike" <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>  
**Cc:** "Segall, Robin" <[Segall.Robin@epa.gov](mailto:Segall.Robin@epa.gov)>, "Johnson, Steffan" <[johnson.steffan@epa.gov](mailto:johnson.steffan@epa.gov)>  
**Subject:** Data Request Letter

Mike,

## Deliberative Process / Ex. 5

Thanks,

Ned Shappley | USEPA|OAQPS|AQAD|Measurement Technology Group  
109 TW Alexander Drive (E143-02) | Research Triangle Park, NC 27711  
email: [shappley.ned@epa.gov](mailto:shappley.ned@epa.gov) | Phone (919)541-7903

Appointment

---

**From:** Rimer, Kelly [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=123A21A46D0E4E53A590798CDCC3FB47-KRIMER]  
**Sent:** 12/4/2018 12:34:29 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP + **Personal Phone / Ex. 6**  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Recurrence:** (none)

Appointment

---

**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/4/2018 12:31:34 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086eded-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: FW: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/4/2018 12:31:24 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** FW: Meeting re: Willowbrook samples  
**Attachments:** Re: Willowbrook samples Nov 14-20 - All spreadsheets  
**Location:** WJC - N 5400 + Video with RTP + **Personal Phone / Ex. 6**  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Tentative

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Monday, December 3, 2018 12:39 PM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Smith, Darcie; Weinstock, Lewis; Bremer, Kristen; Chen, Xi  
**Subject:** Meeting re: Willowbrook samples  
**When:** Tuesday, December 4, 2018 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with RTP **Personal Phone / Ex. 6**

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer



Re: Willowbrook  
samples Nov 14-...

Appointment

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/4/2018 12:31:26 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Recurrence:** (none)

Appointment

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**From:** Microsoft Outlook [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=MICROSOFTEXCHANGE329E71EC88AE4615BBC36AB6CE41109EF7088051]  
**Sent:** 12/4/2018 12:31:24 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Meeting Forward Notification: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP **Personal Phone / Ex. 6**  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Recurrence:** (none)

**Your meeting was forwarded**

Harlow, David has forwarded your meeting request to additional recipients.

**Meeting**

Meeting re: Willowbrook samples

**Meeting Time**

Tuesday, 04 December 2018 15:30-16:00.

**Recipients**

Harlow, David

All times listed are in the following time zone: (UTC-05:00) Eastern Time (US & Canada)

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Sent by Microsoft Exchange Server

Appointment

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**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/3/2018 8:32:19 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP + Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/3/2018 8:31:53 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Meeting re: Willowbrook samples  
**Location:** WJC - N 5400 + Video with RTP + **Personal Phone / Ex. 6**  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 5:39:17 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Meeting re: Willowbrook samples  
**Attachments:** Re: Willowbrook samples Nov 14-20 - All spreadsheets  
**Location:** WJC - N 5400 + Video with RTP Personal Phone / Ex. 6  
**Start:** 12/4/2018 8:30:00 PM  
**End:** 12/4/2018 9:00:00 PM  
**Show Time As:** Tentative

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer, Alison Davis, Darcie Smith, Lew Weinstock, Doris Chen, Kristen Bremer



Re: Willowbrook  
samples Nov 14-...

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 5:09:00 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086eded-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 10:00:00 PM  
**End:** 12/3/2018 10:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 5:08:52 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 10:00:00 PM  
**End:** 12/3/2018 10:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 5:08:52 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 10:00:00 PM  
**End:** 12/3/2018 10:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 4:51:16 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 8:00:00 PM  
**End:** 12/3/2018 8:30:00 PM  
**Show Time As:** Busy

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 4:51:10 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 8:00:00 PM  
**End:** 12/3/2018 8:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 12/3/2018 4:51:10 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call with Phil McNabb re: Sterigenics  
**Location:** WJC - N 5400 + **Personal Phone / Ex. 6**  
**Start:** 12/3/2018 8:00:00 PM  
**End:** 12/3/2018 8:30:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 12/3/2018 4:24:47 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, DJ; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Sterigenics Facility Tour  
**Location:** Willowbrook, IL  
**Start:** 11/29/2018 7:00:00 PM  
**End:** 11/29/2018 9:00:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Lewis, Josh [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B22D1D3BB3F84436A524F76AB6C79D7E-JOLEWIS]  
**Sent:** 12/3/2018 4:24:33 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, DJ]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Meeting with Willowbrook elected officials  
**Attachments:** FINAL-willowbrook elected AGENDA 11-29.docx  
**Location:** Willowbrook, IL  
  
**Start:** 11/29/2018 5:00:00 PM  
**End:** 11/29/2018 6:00:00 PM  
**Show Time As:** Tentative

## Message

**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/11/2018 1:42:55 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**CC:** Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]  
**Subject:** RE: Sterigenics Town Hall 11/29/2018

Thanks

---

**From:** Lewis, Josh  
**Sent:** Tuesday, December 11, 2018 7:36 AM  
**To:** Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** Koerber, Mike <Koerber.Mike@epa.gov>; DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** Re: Sterigenics Town Hall 11/29/2018

Yes

On Dec 10, 2018, at 5:50 PM, Davis, Alison <Davis.Alison@epa.gov> wrote:

Got it – are we drafting to go back from his account?  
 Thanks.

---

**From:** Lewis, Josh  
**Sent:** Monday, December 10, 2018 5:12 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** FW: Sterigenics Town Hall 11/29/2018

Bill was interested in having OAQPS draft a response to the email below. Thoughts?

---

**From:** Wehrum, Bill  
**Sent:** Sunday, December 02, 2018 11:49 AM  
**To:** Woods, Clint <woods.Clint@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>  
**Subject:** Fwd: Sterigenics Town Hall 11/29/2018

Let's discuss tomorrow.

---

Bill Wehrum  
 Assistant Administrator  
 Office of Air and Radiation  
 U.S. Environmental Protection Agency  
 (202) 564-7404

Begin forwarded message:

**From:** Kathleen Weaver Personal Phone / Ex. 6

**Date:** December 1, 2018 at 1:35:51 PM EST

**To:** Bill Wehrum <[wehrum.bill@epa.gov](mailto:wehrum.bill@epa.gov)>

**Subject:** Sterigenics Town Hall 11/29/2018

Hello Mr. Wehrum:

It was a pleasure to meet and talk with you at the recent town hall meeting. We talked briefly after the meeting when I broached the subject of the current administration and its affect on your continued work on the EtO issue in our area or the EPA's work on air quality as a whole.

You mentioned that the past administration had more affect on the EPA than the current administration and I would ask you to elaborate on what you meant. When we recently hear in the media that certain air quality restrictions are being removed there is a concern that our health is going to be negatively affected.

As you experienced at the town hall there is a great deal of cynicism in the public's view that the concerns of big (or small) business is being protected over the health of the people.

I am looking forward to your response and wish you happy holidays.

Kathleen Weaver  
Mayor  
City of Darien, IL

Message

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**Sent:** 11/28/2018 1:43:46 PM

**Attachments:** Willowbrook Community Forum Agenda draft 11.27.18 .docx

Josh Lewis  
Chief of Staff  
EPA/Office of Air and Radiation  
Office: 202 564 2095

## Message

**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/10/2018 10:15:28 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]  
**CC:** DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]  
**Subject:** RE: Sterigenics Town Hall 11/29/2018  
**Flag:** Flag for follow up

We will. Thanks Josh.

---

**From:** Lewis, Josh  
**Sent:** Monday, December 10, 2018 5:15 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** RE: Sterigenics Town Hall 11/29/2018

Ok thanks. Also – caught Bill briefly and he was good w/ having a role in the webinar on the 18<sup>th</sup>. Just let us know when you have a draft agenda w/ a suggested time block for him. Clint will likely participate too.

---

**From:** Koerber, Mike  
**Sent:** Monday, December 10, 2018 5:13 PM  
**To:** Lewis, Josh <Lewis.Josh@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** RE: Sterigenics Town Hall 11/29/2018

Yes, we can do that. Let me talk with Alison and I'll get back to you.

Mike

---

**From:** Lewis, Josh  
**Sent:** Monday, December 10, 2018 5:12 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Subject:** FW: Sterigenics Town Hall 11/29/2018

Bill was interested in having OAQPS draft a response to the email below. Thoughts?

---

**From:** Wehrum, Bill  
**Sent:** Sunday, December 02, 2018 11:49 AM  
**To:** Woods, Clint <woods.Clint@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>  
**Subject:** Fwd: Sterigenics Town Hall 11/29/2018

Let's discuss tomorrow.

Bill Wehrum  
Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
(202) 564-7404

Begin forwarded message:

**From:** Kathleen Weaver <[kweaver6801@sbcglobal.net](mailto:kweaver6801@sbcglobal.net)>  
**Date:** December 1, 2018 at 1:35:51 PM EST  
**To:** Bill Wehrum <[wehrum.bill@epa.gov](mailto:wehrum.bill@epa.gov)>  
**Subject:** Sterigenics Town Hall 11/29/2018

Hello Mr. Wehrum:

It was a pleasure to meet and talk with you at the recent town hall meeting. We talked briefly after the meeting when I broached the subject of the current administration and its affect on your continued work on the EtO issue in our area or the EPA's work on air quality as a whole.

You mentioned that the past administration had more affect on the EPA than the current administration and I would ask you to elaborate on what you meant. When we recently hear in the media that certain air quality restrictions are being removed there is a concern that our health is going to be negatively affected.

As you experienced at the town hall there is a great deal of cynicism in the public's view that the concerns of big (or small) business is being protected over the health of the people.

I am looking forward to your response and wish you happy holidays.

Kathleen Weaver  
Mayor  
City of Darien, IL

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## Message

**From:** DeLuca, Isabel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B021C30CBEE4637A7C7CA683E5E044A-IDELUCA]  
**Sent:** 2/4/2019 7:41:07 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** Bill's calendar

Hi Josh,

I'm trying to compile Bill's calendar since 12/21. Here's what I have below – in the entry about the interagency call on the 16<sup>th</sup> it said it might be cancelled, so I'm wondering if that happened? In any case, let me know if you have any questions or concerns with this.

12/24/2018		No scheduled meetings		
12/25/2018		No scheduled meetings		
12/26/2018		No scheduled meetings		
12/27/2018		No scheduled meetings		
12/28/2018		No scheduled meetings		
12/31/2018		No scheduled meetings		
1/1/2019		No scheduled meetings		
1/2/2019		No scheduled meetings		
1/3/2019		No scheduled meetings		
1/4/2019	2:00PM	Interagency Meeting	The White House	
1/4/2018	4:30PM	Staff briefing	EPA Headquarters	this was a 1-1
1/7/2019		No scheduled meetings		
1/8/2019		No scheduled meetings		
1/10/2019		No scheduled meetings		
1/11/2019		No scheduled meetings		
1/14/2019		No scheduled meetings		
1/15/2019	8:30AM	Staff briefings	EPA Headquarters	
1/16/2019	3:30PM	Interagency Call	EPA Headquarters	Did this call h
1/16/2019	4:00PM	Staff briefing	EPA Headquarters	
1/17/2019		No scheduled meetings		
1/18/2019	8:30AM	Staff briefing	EPA Headquarters	
1/18/2019	11:15AM	Meeting with Resolute Forest Products	Washington, DC	
1/18/2019	1:00PM	Interagency Call	EPA Headquarters	
1/21/2019		No scheduled meetings		
1/22/2019		No scheduled meetings		
1/23/2019	2:15PM	Staff briefings	EPA Headquarters	
1/24/2019	11:00AM	Staff briefing	EPA Headquarters	
1/24/2019	1:30PM	Interagency meeting	The White House	
1/25/2019	2:00PM	Speaking Engagement: Society of Environmental Journalists	Washington, DC	prep from 2 t
1/25/2019	4:45PM	Staff briefing	EPA Headquarters	
1/28/2019	9:30AM	Staff briefings	EPA Headquarters	
1/28/2019	4:30PM	Meeting with Senator Alexander	Dirksen Senate Office Building, Wa	
1/28/2019	5:30PM	Call with Sterigenics	EPA Headquarters	
1/29/2019	9:00AM	Staff briefing	EPA Headquarters	
1/29/2019	10:45PM	Meeting with Michael Petras (Sotera Health) and Tom Roberts	EPA Headquarters	note Adminis

1/29/2019	11:15AM	Staff briefing	EPA Headquarters
1/29/2019	1:00PM	Speaking engagement: National Association of Clean Air Agencies	Washington, DC
1/29/2019	2:30PM	Staff briefing	Washington, DC
1/30/2019	8:45AM	Staff briefings at EPA's Research Triangle Park offices	Research Triangle Park, NC
1/31/2019	9:00AM	Staff briefings at EPA's Ann Arbor Lab	Ann Arbor, MI
2/1/2019	9:30AM	Staff briefings	EPA Headquarters
2/1/2019	11:00AM	Media Interview	EPA Headquarters
2/1/2019	11:15AM	Staff briefings	EPA Headquarters
2/1/2019	2:45PM	Call with Department of Energy Undersecretary Mark Menezes	EPA Headquarters
2/1/2019	3:30PM	Staff briefings	EPA Headquarters

Isabel DeLuca

Office of Air and Radiation, US EPA

(202) 343-9247

Appointment

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**From:** Rakosnik, Delaney [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=274573739A9F446883072599086EDED-RAKOSNIK, D]  
**Sent:** 2/4/2019 3:01:27 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Phone call with Phil MacNabb re: Sterigenics  
**Location:** WJC - N 5400 + Personal Phone / Ex. 6  
**Start:** 2/4/2019 4:30:00 PM  
**End:** 2/4/2019 5:00:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 11/28/2018 4:27:05 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: NATA briefing for Lake County Elected Officials  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Recurrence:** (none)

Appointment

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**From:** Microsoft Outlook [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=MICROSOFTEXCHANGE329E71EC88AE4615BBC36AB6CE41109EF7088051]  
**Sent:** 11/28/2018 4:27:04 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Meeting Forward Notification: NATA briefing for Lake County Elected Officials  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Recurrence:** (none)

**Your meeting was forwarded**

Harlow, David has forwarded your meeting request to additional recipients.

**Meeting**

NATA briefing for Lake County Elected Officials

**Meeting Time**

Wednesday, 28 November 2018 15:00-16:00.

**Recipients**

Harlow, David

All times listed are in the following time zone: (UTC-05:00) Eastern Time (US & Canada)

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Sent by Microsoft Exchange Server

Appointment

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 11/28/2018 4:27:04 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** FW: NATA briefing for Lake County Elected Officials  
**Attachments:** Details and VTC for 11/28 meeting  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Show Time As:** Tentative

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Tuesday, November 27, 2018 11:01 AM  
**To:** Wehrum, Bill; Woods, Clint; Mike Koerber (Koerber.Mike@epa.gov); Rimer, Kelly; Davis, Alison; Deamer, Eileen  
**Cc:** Nam, Ed; Kelley, Jeff; Siegel, Kathryn; Cain, Alexis; Fortin, Denise; Engelmann, Robert; James Payne (payne.james@epa.gov); Kurt Thiede (thiede.kurt@epa.gov)  
**Subject:** NATA briefing for Lake County Elected Officials  
**When:** Wednesday, November 28, 2018 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room

**TO:** Bill Wehrum, Clint Woods, Mike Koerber, Kelly Rimer  
**CC:** Alison Davis, Eileen Deamer



Details and VTC  
 for 11/28 meeting

Appointment

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**From:** Cain, Alexis [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0249D52AFE7A491EA6859BF276E694E9-ACAIN]  
**Sent:** 11/28/2018 3:13:02 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: FW: NATA briefing for Lake County Elected Officials  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Show Time As:** Busy

## Message

**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 12/19/2018 2:45:24 AM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]  
**Subject:** Fwd: Trust?

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Dr. Katherine Howard" **Personal Privacy / Ex. 6**  
**Date:** December 18, 2018 at 7:50:26 PM EST  
**To:** "bill.dart@illinois.gov" <bill.dart@illinois.gov>, "Brad.Frost@illinois.gov" <Brad.Frost@illinois.gov>, "Alec.Messina@illinois.gov" <Alec.Messina@illinois.gov>, "butler@ilhousegop.org" <butler@ilhousegop.org>, "Joel.creswell@mail.house.gov" <Joel.creswell@mail.house.gov>, "Durkin@ILHouseGOP.org" <Durkin@ILHouseGOP.org>, "olsen@ilhousegop.org" <olsen@ilhousegop.org>, "dcook@strivestrategiesgroup.com" <dcook@strivestrategiesgroup.com>, "illinois32district@gmail.com" <illinois32district@gmail.com>, "RepDistrict3@gmail.com" <RepDistrict3@gmail.com>, "Assistance@StateRepCarolAmmons.com" <Assistance@StateRepCarolAmmons.com>, "staterepcostello@gmail.com" <staterepcostello@gmail.com>, "sara@staterepsara.com" <sara@staterepsara.com>, "repfine@gmail.com" <repfine@gmail.com>, "staterepgabel@robyngabel.com" <staterepgabel@robyngabel.com>, "repsonyaharper@gmail.com" <repsonyaharper@gmail.com>, "mike@repmikemarron.com" <mike@repmikemarron.com>, "mazzochi@ilhousegop.org" <mazzochi@ilhousegop.org>, "McDermed@ilhousegop.org" <McDermed@ilhousegop.org>, "repcmeier@gmail.com" <repcmeier@gmail.com>, "repmitchell@earthlink.net" <repmitchell@earthlink.net>, "staterepmoeller@gmail.com" <staterepmoeller@gmail.com>, "Repmorrison54@gmail.com" <Repmorrison54@gmail.com>, "repsepte@gmail.com" <repsepte@gmail.com>, "skillicorn@ilhousegop.org" <skillicorn@ilhousegop.org>, "arthurt@ilga.gov" <arthurt@ilga.gov>, "statereplarrywalshjr@gmail.com" <statereplarrywalshjr@gmail.com>, "Senator John F. Curran" <senatorcurran@gmail.com>, "Senator Tammy Duckworth" <correspondence@duckworth.senate.gov>, "state\_scheduler@durbin.senate.gov" <state\_scheduler@durbin.senate.gov>, "chris@chrisnybo.org" <chris@chrisnybo.org>, "mdunn@atg.state.il.us" <mdunn@atg.state.il.us>, "sao@dupageco.org" <sao@dupageco.org>, "ewallace@atg.state.il.us" <ewallace@atg.state.il.us>, "cain.alexis@epa.gov" <cain.alexis@epa.gov>, "compher.michael@epa.gov" <compher.michael@epa.gov>, "Davis, Alison" <Davis.Alison@epa.gov>, "eto@epa.gov" <eto@epa.gov>, "koerber.mike@epa.gov" <koerber.mike@epa.gov>, "mckelvey.laura@epa.gov" <mckelvey.laura@epa.gov>, "siegel.kathryn@epa.gov" <siegel.kathryn@epa.gov>, "Terry.sara@epa.gov" <Terry.sara@epa.gov>, "wilson.holly@epa.gov" <wilson.holly@epa.gov>, "mdjohnson@cdc.gov" <mdjohnson@cdc.gov>, "wheeler.andrew@epa.gov" <wheeler.andrew@epa.gov>, "wehrum.william@epa.gov" <wehrum.william@epa.gov>, "hatfield.jim@epa.gov" <hatfield.jim@epa.gov>, "mcghee-lenart.renee@epa.gov" <mcghee-lenart.renee@epa.gov>  
**Subject:** Trust?

Day 119.

I don't remember the exact words uttered in today's webinar with the EPA but Assistant Administrator of the Air and Radiation Department William Wehrum's comment about mending

our broken trust with Sterigenics was incredibly ignorant and insulting to the residents in the plume of EtO emissions.

Trust Sterigenics? Who is he kidding? Does he not remember his conversation with many of us on November 29<sup>th</sup>? Is he ignoring the 34 years of evidence that is available of this company's actions and inactions? This company started with little evidence that they had any real intention of being a decent member of this community. Facility management were told in a letter dated July 6, 1984 (before startup) about the danger of high emissions of ethylene oxide.

"The toxicity data provides evidence of human cancers of the pancreas, bladder, brain, central nervous system and stomach associated with ETO exposure. Various animal studies have shown carcinogenic, mutagenic leukogenic and teratogenic effects. These studies indicate that the acceptable ground level concentrations of ETO is 0.007 micrograms per cubic meter. While the Agency does not have any established standards for ETO at this time nor are we suggesting that the acceptable concentrations referenced above are necessarily the number that we are committed to using, in our opinion the emissions from the Micro Biotrol facility appear to be several magnitudes higher than desirable."

They utterly destroyed even the smallest molecule of integrity in year one when they emitted over 130,000 pounds of ethylene oxide into our air. In the following years emissions reached over 233,000 pounds annually. Trust? They lost any respect and trust when they put off installing emission control devices for years and then resisted any verifiable evidence that the devices were functioning. They trashed their trust when they knowingly continued pumping thousands of pounds of a carcinogenic chemical in the air of nearby schools and homes. They destroyed their right to be in our community decades ago and they knew what they were doing when statements in their 1999 financial documents publicly acknowledged the financial repercussions and the dangers of using ethylene oxide. Their actions over the years demonstrated repeatedly that they were never worthy of our trust.

How dare Wehrum even utter the word "Trust" to us. What was Wehrum doing before he was appointed to the EPA? He was a lawyer for the chemical industry. Mr. Wehrum looked me in the eye on November 29<sup>th</sup> as I sat in front of him hooked up to my j-tube and told me to trust him. He told those gathered there that he was on our side. He told the community to trust him. Does he realize why his words today resulted in massive eye rolling and chins dropping? I swear my eyes rolled so hard I saw my brain.

Every air monitoring result to date has demonstrated levels of ethylene oxide in our air that far exceeds acceptable limits. Anything other than an immediate shutdown is an unacceptable response. No, Mr. Wehrum, we do not trust you and we will never trust Sterigenics. They burned that bridge long ago and there is no redemption. They must go.

The words today did not provide any additional answers. They did not offer any comfort or resolution. What they did do was further inflame a community. The words today pissed off already angry residents. Those words will be used as a rallying cry to others as our efforts will increase with each additional day. The holidays will be over soon, and, without that distraction, our voices are going to get louder and louder. Newly elected officials will be taking office in a few weeks and they have already voiced support. This community is hurting but we have not begun to fight. Too many of us have actually faced death head-on to be put off by the glib words of a political appointee.

Call me anytime Mr. Wehrum when you are ready assume the responsibility of your current

position as opposed to your former position. But, please, speak no more of trust Mr. Wehrum, in my opinion, you do not know the meaning of the word you so casually used.

Katherine Howard

Sent from Mail for Windows 10

## Appointment

**From:** Ringel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1654bdc951284a6d899a418a89fb0abf-Ringel, Aar]  
**Sent:** 12/12/2018 2:03:53 PM  
**To:** Ringel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1654bdc951284a6d899a418a89fb0abf-Ringel, Aar]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clint]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]; Koerber, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9c513901d4fd49f9ab101a6f7a7a863e-Koerber, Mike]; Rimer, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=123a21a46d0e4e53a590798cdcc3fb47-KRIMER]  
**CC:** Rodrick, Christian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6515dbe46dae466da53c8a3aa3be8cc2-Rodrick, Ch]  
**Subject:** RESCHEDULING: Call w/ Samantha Warren (Rep Foster)  
**Location:** Call in Personal Phone / Ex. 6 conference ID: Personal Phone / Ex. 6  
**Start:** 12/12/2018 9:00:00 PM  
**End:** 12/12/2018 9:30:00 PM  
**Show Time As:** Tentative

**From:** "Warren, Samantha" <[Samantha.Warren@mail.house.gov](mailto:Samantha.Warren@mail.house.gov)>  
**Date:** November 29, 2018 at 4:11:53 PM CST  
**To:** "[woods.clint@epa.gov](mailto:woods.clint@epa.gov)" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** Questions from Congressman Foster

Hi Clint,

Thanks so much to you and Administrator Wheeler for coming in to talk with us about Sterigenics. Congressman Foster had a few follow-up questions. Happy to speak with a relevant technical expert.

Assuming a linear dose-response, which I understand can be either pessimistic or optimistic:

- 1) Based on the industrial exposure data, roughly how many PPM-hours of EtO exposure are required to generate one case of cancer (best guess, without safety factors)?
- 2) How many PPM-hours of exposure have been generated by Sterigenics, based on the measured concentrations in the neighborhood, and the population of the neighborhood, and the years of operation? (Using the average of the observed concentrations at representative distances, not the worst-case measurements).
- 3) Therefore, what is the most likely number of excess cancer cases we should expect in the neighborhood, and reasonable upper and lower bounds on that estimate?

**Samantha R. Warren**  
 Legislative Director  
 U.S. Rep. Bill Foster (IL-11)  
 1224 Longworth House Office Building  
 Washington, DC 20515  
 P: (202) 225-3515  
[www.foster.house.gov](http://www.foster.house.gov)

## Message

**From:** Koerber, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9C513901D4FD49F9AB101A6F7A7A863E-KOERBER, MIKE]  
**Sent:** 12/12/2018 8:59:17 PM  
**To:** Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Davis, Alison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1c309f42d5d44d18a52b027bd0112778-ADAVIS06]  
**CC:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]  
**Subject:** RE: Call tomorrow at 12:30 with [Personal Privacy / Ex. 6] Willowbrook citizen)

I'm available, too

---

**From:** Lewis, Josh  
**Sent:** Wednesday, December 12, 2018 3:43 PM  
**To:** Davis, Alison <Davis.Alison@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Rakosnik, Delaney <rakosnik.delaney@epa.gov>  
**Subject:** RE: Call tomorrow at 12:30 with [Personal Privacy / Ex. 6] Willowbrook citizen)

Thanks. We'll call you on [Personal Privacy / Ex. 6] and then conference in Jennifer. I'll sit in too.

---

**From:** Davis, Alison  
**Sent:** Wednesday, December 12, 2018 3:25 PM  
**To:** Lewis, Josh <Lewis.Josh@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>  
**Cc:** Rakosnik, Delaney <rakosnik.delaney@epa.gov>  
**Subject:** RE: Call tomorrow at 12:30 with [Personal Privacy / Ex. 6] (Willowbrook citizen)

I'm available.

---

**From:** Lewis, Josh  
**Sent:** Wednesday, December 12, 2018 3:24 PM  
**To:** Koerber, Mike <Koerber.Mike@epa.gov>; Davis, Alison <Davis.Alison@epa.gov>  
**Cc:** Rakosnik, Delaney <rakosnik.delaney@epa.gov>  
**Subject:** Call tomorrow at 12:30 with [Personal Privacy / Ex. 6] (Willowbrook citizen)

Bill agreed to do 10-15 min phone call w/ a local constituent who has called the main line 4-5 times over the course of the past month (I've spoken to her mostly; she may have also called one/both of you or others in OAQPS). She called back today and is insisting on a call w/ Bill. He agreed. He would like to have one of you join him, if you're available. Let me know and we'll add you to the invite.

It'll likely be at 12:30 tomorrow.

Josh

## Appointment

**From:** Rodrick, Christian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6515DBE46DAE466DA53C8A3AA3BE8CC2-RODRICK, CH]  
**Sent:** 12/12/2018 3:36:19 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** RESCHEDULING: Call w/ Samantha Warren (Rep Foster)  
**Location:** Call in: Personal Privacy / Ex. 6 conference ID: Personal Privacy / Ex. 6  
**Start:** 12/12/2018 9:00:00 PM  
**End:** 12/12/2018 9:30:00 PM  
**Show Time As:** Tentative

**From:** "Warren, Samantha" <[Samantha.Warren@mail.house.gov](mailto:Samantha.Warren@mail.house.gov)>  
**Date:** November 29, 2018 at 4:11:53 PM CST  
**To:** "[woods.clint@epa.gov](mailto:woods.clint@epa.gov)" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** Questions from Congressman Foster

Hi Clint,

Thanks so much to you and Administrator Wheeler for coming in to talk with us about Sterigenics. Congressman Foster had a few follow-up questions. Happy to speak with a relevant technical expert.

Assuming a linear dose-response, which I understand can be either pessimistic or optimistic:

- 1) Based on the industrial exposure data, roughly how many PPM-hours of EtO exposure are required to generate one case of cancer (best guess, without safety factors)?
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- 3) Therefore, what is the most likely number of excess cancer cases we should expect in the neighborhood, and reasonable upper and lower bounds on that estimate?

**Samantha R. Warren**  
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 U.S. Rep. Bill Foster (IL-11)  
 1224 Longworth House Office Building  
 Washington, DC 20515  
 P: (202) 225-3515  
[www.foster.house.gov](http://www.foster.house.gov)

## Appointment

**From:** Rodrick, Christian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6515DBE46DAE466DA53C8A3AA3BE8CC2-RODRICK, CH]  
**Sent:** 12/12/2018 2:03:50 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call w/ Samantha Warren (Rep Foster)  
**Location:** Call in: Personal Privacy / Ex. 6 conference ID: Personal Privacy / Ex. 6  
**Start:** 12/12/2018 9:00:00 PM  
**End:** 12/12/2018 9:30:00 PM  
**Show Time As:** Tentative

**From:** "Warren, Samantha" <[Samantha.Warren@mail.house.gov](mailto:Samantha.Warren@mail.house.gov)>  
**Date:** November 29, 2018 at 4:11:53 PM CST  
**To:** "[woods.clint@epa.gov](mailto:woods.clint@epa.gov)" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
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- 3) Therefore, what is the most likely number of excess cancer cases we should expect in the neighborhood, and reasonable upper and lower bounds on that estimate?

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Appointment

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**From:** Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]  
**Sent:** 12/6/2018 2:39:37 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP + **Personal Privacy / Ex. 6**  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Recurrence:** (none)

Appointment

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**From:** Weinstock, Lewis [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DF30E068EFB24A24B35D63BE0596AD9B-LWEINS02]  
**Sent:** 12/5/2018 7:28:36 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: Willowbrook Samples follow Up  
**Location:** WJC - N 5400 + Video with RTP + Personal Phone / Ex. 6  
**Start:** 12/6/2018 4:00:00 PM  
**End:** 12/6/2018 4:30:00 PM  
**Recurrence:** (none)

## Appointment

**From:** Rodrick, Christian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6515DBE46DAE466DA53C8A3AA3BE8CC2-RODRICK, CH]  
**Sent:** 12/13/2018 7:47:32 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, DJ]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call w/ Samantha Warren from Rep. Foster's office  
**Location:** Conference Line: Personal Phone / Ex. 6 Conference ID: Personal Phone / Ex. 6  
**Start:** 12/19/2018 5:00:00 PM  
**End:** 12/19/2018 5:30:00 PM  
**Show Time As:** Tentative

**From:** "Warren, Samantha" <[Samantha.Warren@mail.house.gov](mailto:Samantha.Warren@mail.house.gov)>  
**Date:** November 29, 2018 at 4:11:53 PM CST  
**To:** "[woods.clint@epa.gov](mailto:woods.clint@epa.gov)" <[woods.clint@epa.gov](mailto:woods.clint@epa.gov)>  
**Subject:** Questions from Congressman Foster

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Appointment

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**From:** Davis, Alison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C309F42D5D44D18A52B027BD0112778-ADAVIS06]  
**Sent:** 2/5/2019 3:17:58 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** FW: Update on Willowbrook testing  
**Location:** call in: **Personal Phone / Ex. 6**  
**Start:** 2/5/2019 3:30:00 PM  
**End:** 2/5/2019 4:00:00 PM  
**Show Time As:** Tentative

-----Original Appointment-----

**From:** Nam, Ed  
**Sent:** Tuesday, February 05, 2019 10:04 AM  
**To:** Nam, Ed; Armitage, Julie; Koerber, Mike; Weinstock, Lewis; Davis, Alison; Siegel, Kathryn; Compher, Michael; Thiede, Kurt; Mattison, Kevin; Kelley, Jeff; Newton, Cheryl; Wallace, Elizabeth; Dunn, Matthew; Morgan, James; Furey, Eileen; Jones, Eric E.; Smith, Lisa; Sylvester, Stephen; Pamenter, Kathryn; Rottenberg, Daniel; King, Steven  
**Cc:** Deamer, Eileen; Singer, Joshua  
**Subject:** Update on Willowbrook testing  
**When:** Tuesday, February 05, 2019 9:30 AM-10:00 AM (UTC-06:00) Central Time (US & Canada).  
**Where:** call in: **Personal Phone / Ex. 6**

Apologies again for the last minute notice.  
 EPA/OAQPS would like to provide this briefing today at 9:30 CST.

Thanks,  
 -Ed

Appointment

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**From:** Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]  
**Sent:** 12/13/2018 5:02:49 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** FW: Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**Location:** WJC - N 5400 + conference call  
  
**Start:** 12/13/2018 5:30:00 PM  
**End:** 12/13/2018 6:00:00 PM  
**Show Time As:** Tentative

-----Original Appointment-----

**From:** Rakosnik, Delaney **On Behalf Of** Wehrum, Bill  
**Sent:** Wednesday, December 12, 2018 3:47 PM  
**To:** Wehrum, Bill; Davis, Alison; Mike Koerber (Koerber.Mike@epa.gov)  
**Subject:** Conference call with Willowbrook citizen Jennifer McConaghy re: Sterigenics facility  
**When:** Thursday, December 13, 2018 12:30 PM-1:00 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** WJC - N 5400 + conference call

Alison #: Personal Phone / Ex. 6

Jennifer #: Personal Phone / Ex. 6

Message

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**Sent:** 2/27/2019 4:46:29 PM  
**To:** Jennifer McConahy [Personal Privacy / Ex. 6]  
**Subject:** RE: Calendar for Bill Wehrum, Assistant Administrator for the Office of Air and Radiation | Senior Leaders' Calendars | US EPA

Hi Jen,

On February 5<sup>th</sup>, at the request of EPA's congressional office, Bill participated on a call with staff from the Illinois congressional delegation. This was the same day as the EPA webinar that was open to the general public, on which EPA discussed a new set of air quality monitoring results we were releasing.

More generally, Bill has accepted EtO call and meeting requests from a range of stakeholders, including calls with Sterigenics, webinars with the general public, the in person meeting in Willowbrook, and the one-on-one call he had with you in December.

Josh

**From:** Jennifer McConahy [Personal Privacy / Ex. 6]  
**Sent:** Monday, February 25, 2019 9:23 AM  
**To:** Wehrum, Bill <Wehrum.Bill@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>  
**Subject:** Calendar for Bill Wehrum, Assistant Administrator for the Office of Air and Radiation | Senior Leaders' Calendars | US EPA

Hello-

I would like to know why Mr. Wehrum is having so many phone calls with Sterigenics. And what the EtO meeting on the hill was? As someone who is suffering from EtO pollution we sure don't have this amount of interaction from Mr. Wehrum. Curious.

Jen

Calendar for Bill Wehrum, Assistant Administrator for the Office of Air and Radiation | Senior Leaders' Calendars | US EPA

<https://www.epa.gov/senior-leaders-calendars/calendar-bill-wehrum-assistant-administrator-office-air-and-radiation>

Appointment

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**From:** Microsoft Outlook [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=MICROSOFTEXCHANGE329E71EC88AE4615BBC36AB6CE41109EF7088051]  
**Sent:** 11/27/2018 9:45:46 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Meeting Forward Notification: NATA briefing for Lake County Elected Officials  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Recurrence:** (none)

**Your meeting was forwarded**

Nam, Ed has forwarded your meeting request to additional recipients.

**Meeting**

NATA briefing for Lake County Elected Officials

**Meeting Time**

Wednesday, 28 November 2018 15:00-16:00.

**Recipients**

Payne, James

Thiede, Kurt

All times listed are in the following time zone: (UTC-05:00) Eastern Time (US & Canada)

---

Sent by Microsoft Exchange Server

Appointment

---

**From:** Grantham, Nancy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12A3C2ED7158417FB0BB1B1B72A8CFB0-GRANTHAM, NANCY]  
**Sent:** 11/20/2018 8:34:03 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, DJ]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Call to discuss press strategy for Willowbrook community meeting on November 29  
**Location:** Call in # Personal Phone / Ex. 6  
**Start:** 11/20/2018 10:30:00 PM  
**End:** 11/20/2018 11:00:00 PM  
**Show Time As:** Tentative

Appointment

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**From:** Grantham, Nancy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12A3C2ED7158417FB0BB1B1B72A8CFB0-GRANTHAM, NANCY]  
**Sent:** 11/27/2018 6:02:58 PM  
**To:** Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, DJ]; Wright, Rhonda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5d6d041a34ea466dac1f7985308e35ea-RWRIGH04]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Willowbrook Meeting Check in  
**Location:** **Personal Phone / Ex. 6**  
**Start:** 11/27/2018 6:00:00 PM  
**End:** 11/27/2018 6:30:00 PM  
**Show Time As:** Tentative

We are on the line

Appointment

---

**From:** Nam, Ed [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A2653F1DDD59470688BA557DD84D9690-NAM, ED]  
**Sent:** 11/27/2018 5:08:45 PM  
**To:** Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Rakosnik, Delaney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=274573739a9f446883072599086ededd-Rakosnik, D]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Atkinson, Emily [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bb2155adef6a44aea9410741f0c01d27-Atkinson, Emily]  
**Subject:** Accepted: FW: NATA briefing for Lake County Elected Officials  
**Location:** WJC - N 5400 + Video with R5 HQ, Lake Michigan Room  
**Start:** 11/28/2018 8:00:00 PM  
**End:** 11/28/2018 9:00:00 PM  
**Show Time As:** Busy